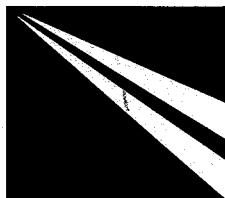


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TRANSPORT SA

SAFETY STRATEGY

**EVALUATION OF COMPETENCY-BASED
DRIVER TRAINING & ASSESSMENT
IN SOUTH AUSTRALIA**

TRANSPORT SA

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ABSTRACT:

The study aimed to determine whether there is a meaningful difference between the two procedures by which a driver may obtain a Provisional Driver's Licence in South Australia: the Competency-Based Driver Training and Assessment (CBTA) scheme and the Vehicle on Road Test (VORT), in terms of the rate at which recently licensed drivers are involved in crashes and moving traffic offences. Data concerning the accident history of the drivers was drawn from the South Australian Traffic Accident Reporting System (TARS) database.

Competency based Training and Assessment (CBTA) became increasingly popular as a method of obtaining a Provisional Driver's Licence in South Australia from 1995 to 1998. Females were more likely to choose CBTA than males, but they were less likely to obtain a Provisional Licence when they were 16 years of age.

Overall, there was no meaningful difference in crash involvement in the first year of driving between drivers who obtained a Provisional Licence by CBTA and those who took the VORT. There was no apparent difference between the casualty crash rates of CBTA and VORT drivers as a whole and no differences appeared when examining males and females separately.

Overall, drivers who qualified for a Provisional Licence by CBTA had fewer first offences than those who did so by the VORT. After accounting for both sex and age effects, it appears that, at least for males, CBTA may play a role in reducing traffic offences.

KEY WORDS: breath, alcohol, police, detection, night, time, seatbelt, restraint, self-report, survey

DISCLAIMER: This report is disseminated in the interests of information exchange. The views expressed here are those of the authors and are not necessarily those of Transport SA or the South Australian Government.

Evaluation of Competency-Based Driver Training and Assessment In South Australia

A Report for Transport SA

by

Kloeden CN and McLean AJ

**Road Accident Research Unit
The University of Adelaide**

Final Report - September 2000

EXECUTIVE SUMMARY

The aim of this study is to determine whether there is a meaningful difference between the two procedures by which a driver may obtain a Provisional Driver's Licence in South Australia: the Competency-Based Driver Training and Assessment (CBTA) scheme and the Vehicle on Road Test (VORT), in terms of the rate at which recently licensed drivers are involved in crashes and moving traffic offences.

CBTA involves multiple training sessions spent by the learner driver with an Accredited Driving Instructor, with assessment proceeding on a cumulative basis. When all of the nominated tasks have been completed successfully, the driver is issued with a Certificate of Competency which enables him or her to obtain a Provisional Licence from a Transport SA Customer Service Centre.

The VORT is similar to the traditional approach to obtaining a Provisional Licence. It comprises a single practical test of the same skills tested for in the CBTA course. It is conducted mainly by Authorised Driving Instructors over a standard test route.

The minimum age for obtaining a Learner's Permit is 16 years, and the driver must be aged at least 16 years and six months before applying for a Provisional Licence.

Transport SA registration and licensing databases were accessed to provide information on the population of drivers who obtained a Provisional Licence for the first time between 1995 and 1998, inclusive.

Data concerning the accident history of the drivers was drawn from the South Australian Traffic Accident Reporting System (TARS) database.

Competency based Training and Assessment (CBTA) became increasingly popular as a method of obtaining a Provisional Driver's Licence in South Australia from 1995 to 1998. Females were more likely to choose CBTA than males, but they were less likely to obtain a Provisional Licence when they were 16 years of age. In the Adelaide metropolitan area, drivers from higher socio-economic status areas were more likely to choose CBTA than were drivers from low socio-economic status areas. However, we were not able to classify more than half of the drivers because post code data for place of residence was not available.

Overall, there was no meaningful difference in crash involvement in the first year of driving between drivers who obtained a Provisional Licence by Competency Based Training and Assessment and those who took the Vehicle On Road Test.

A small difference was apparent among male drivers where those who obtained a Provisional Licence by means of CBTA had a higher rate of crashes than those who chose to take the VORT. This difference became inconsistent after age was also taken into account suggesting that there is little difference between the crash experience of CBTA and VORT drivers.

There was no apparent difference between the casualty crash rates of CBTA and VORT drivers as a whole and no differences appeared when examining males and females separately. After age was also taken into account some differences emerged but they were inconsistent and probably just random variations due to small numbers.

Overall, drivers who qualified for a Provisional Licence by CBTA had fewer first offences than those who did so by the VORT. On further examination it was found that most of this difference was due to an artefact based on sex biases about choice of licensing method and offence rates. After accounting for both sex and age effects, it appears that, at least for males, CBTA may play a role in reducing traffic offences.

Speeding offences alone were examined and after taking sex of driver into account, no meaningful difference was apparent between the CBTA and VORT groups. However, when alcohol offences alone were examined, both males and females continued to show a meaningful difference in offence rates between those who had taken CBTA and those who had taken the VORT. This strongly suggests that **either CBTA is a strong deterrent to drink driving and/or more likely that other factors associated with choosing VORT are also associated with higher levels of drinking and driving.**

The general conclusion from this study is that CBTA appeared to have little effect on the rate of crash involvement in the first 12 months of driving on a Provisional Licence, compared with drivers who took the VORT, but it did appear to reduce the rate of traffic offences at least among males (although even this may be an artefact of a factor not examined). These findings are consistent with the outcome of a review of evaluations of driver improvement programs conducted by Struckman-Johnson et al (1989).

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1. INTRODUCTION

1.1 Aim

The aim of this study is to determine whether there is a meaningful difference between the two procedures by which a driver may obtain a Provisional Driver's Licence in South Australia: the Competency-Based Driver Training and Assessment (CBTA) scheme and the Vehicle on Road Test (VORT), in terms of the rate at which recently licensed drivers are involved in crashes and moving traffic offences.

1.2 Background

CBTA involves multiple training sessions spent by the learner driver with an Accredited Driving Instructor, with assessment proceeding on a cumulative basis. The tasks that a learner driver must be able to perform before obtaining a licence are "signed off" in a log book as the driver completes them. When all of the nominated tasks have been completed successfully, the driver is issued with a Certificate of Competency which enables him or her to obtain a Provisional Licence from a Transport SA Customer Service Centre. This method of assessment was introduced in South Australia in April, 1993.

The VORT is similar to the traditional approach to obtaining a Provisional Licence. It comprises a single practical test of the same skills tested for in the CBTA course. It is conducted mainly by Authorised Driving Instructors over a standard test route. The VORT was introduced in its present form in October, 1992.

The minimum age for obtaining a Learner's Permit is 16 years, and the driver must be aged at least 16 years and six months before applying for a Provisional Licence.

A process level evaluation of the operation of CBTA is being conducted by Alan Drummond for AUSTROADS with a view to its introduction into other Australian States. At present, the Australian Capital Territory is the only other jurisdiction in Australia to offer a form of CBTA, having introduced it in October, 1997.

Other studies of CBTA have been or are being undertaken but none have reported on the accident or offence history of novice drivers according to the method of assessment they undertook. As noted above, that is the aim of this study.

2. METHOD

Transport SA registration and licensing databases were accessed to provide information on the population of drivers who obtained a Provisional Licence between 1995 and 1998, inclusive. This produced two groups of drivers: those who qualified for a Provisional Licence by means of the Vehicle On Road Test (VORT) and those who did so by completing a Competency Based Training and Assessment (CBTA) course.

These two groups were then compared with each other with regard to a number of variables. These included how long it took them to obtain a Provisional Licence, their subsequent history of traffic offences and crash involvement, and demographic factors (age and sex). When available, the place of residence as indicated by the post code was used as an albeit crude measure of socio-economic status.

A copy of the list of registration and licensing information requested from the Transport SA Customer Service Centre is presented in Appendix A.

Data concerning the accident history of the drivers was drawn from the South Australian Traffic Accident Reporting System (TARS) database.

3. CORRELATES OF PROVISIONAL LICENSING PROCEDURE

This section reviews a number of correlates with the choice of method for obtaining a Provisional Licence, specifically: year of licence; driver sex and age; the time spent on L-Plates; and a measure of Socio-economic status.

3.1 Year and Method of Obtaining Provisional Licence

Table 3.1 shows the year and the method of obtaining a Provisional Licence for drivers who did so for the first time between 1995 and 1998, inclusive. Data for earlier years was not available in a readily accessible form. It is apparent that more drivers chose CBTA as a method of getting a Provisional Licence and that it increased in popularity during those years. Note that the VORT figures include all the Police testing used in remote areas where access to CBTA was not available.

Table 3.1
Year and Method of Obtaining Provisional Licence
South Australian Drivers 1995-1998

Year	CBTA	VORT	Total	% CBTA
1995	8854	8242	17096	51.8
1996	13926	8372	22298	62.5
1997	14022	7628	21650	64.8
1998	15622	6876	22498	69.4
Total	52424	31118	83542	62.8

3.2 Sex of Driver and Method of Obtaining Provisional Licence

Females drivers were more likely to choose the CBTA scheme when obtaining a Provisional Licence, as shown in Table 3.2.

Table 3.2
Sex of Driver and Method of Obtaining Provisional Licence
South Australian Drivers 1995-1998

Year	CBTA	VORT	Total	% CBTA
Male	23123	18031	41154	56.2
Female	28717	12635	41352	69.4
Unknown	584	452	1036	56.4
Total	52424	31118	83542	62.8

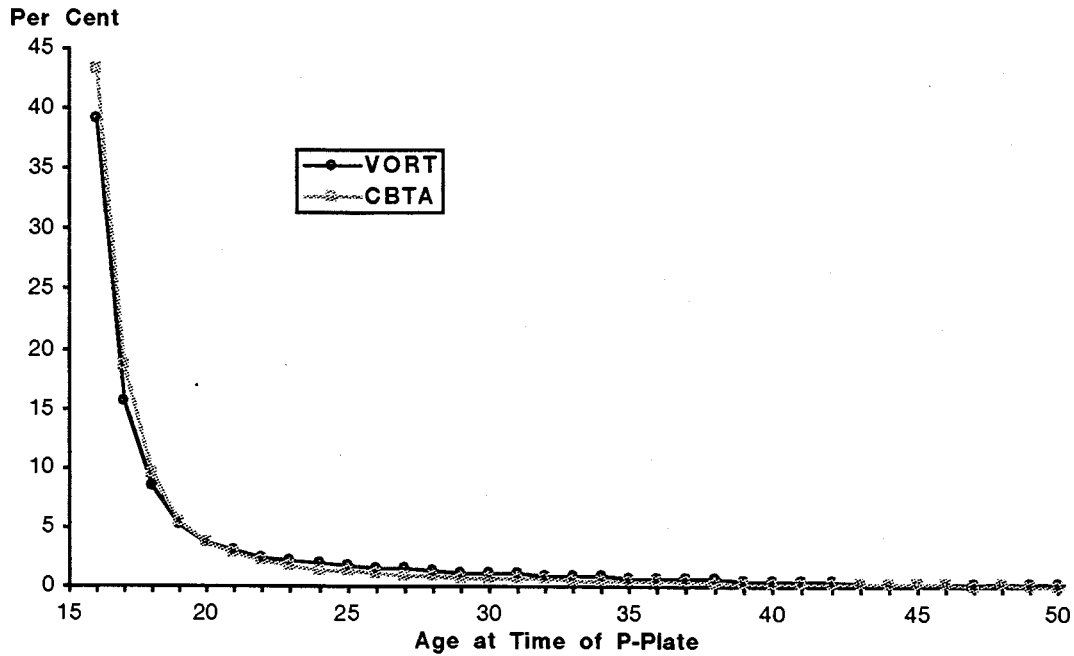
3.3 Age of Driver and Method of Obtaining Provisional Licence

As would be expected, most drivers obtain a Provisional Licence soon after they reach the minimum age of 16 years and six months (Table 3.3 and Figure 3.1). Of the drivers in this study, 34,810, or 42 per cent, obtained their Provisional Licence when they were 16 years of age and 59 per cent before they turned eighteen.

Table 3.3
Age of Driver and Method of Obtaining Provisional Licence
South Australian Drivers 1995-1998

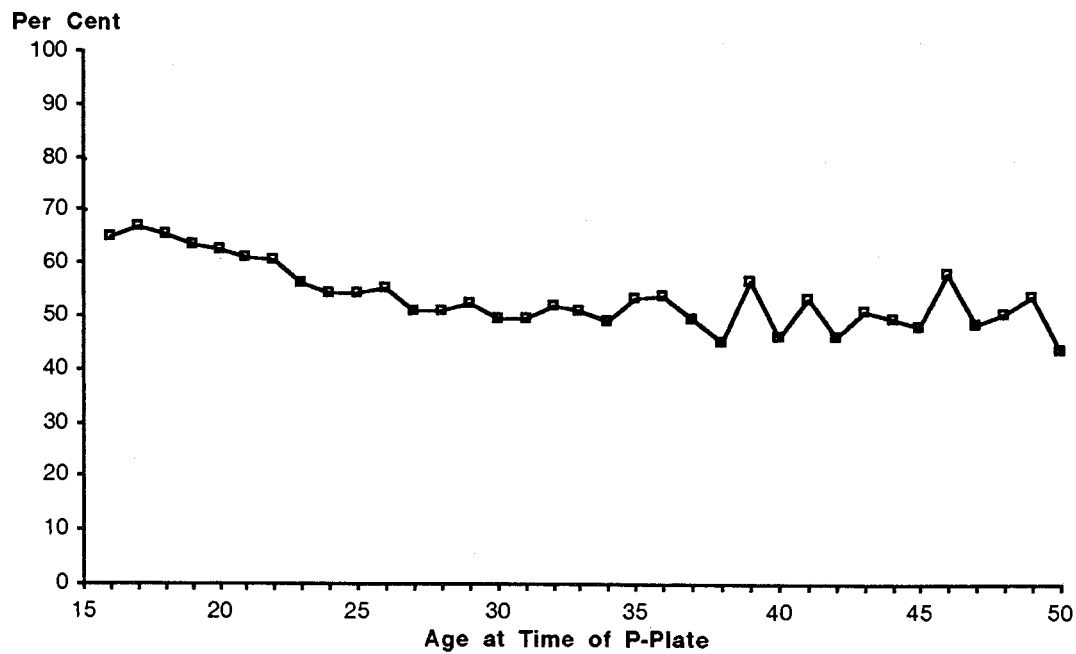
Age of Driver	Number		Column %		Row %
	CBTA	VORT	CBTA	VORT	%CBTA
16	22640	12170	43.2	39.2	65.0
17	9791	4809	18.7	15.5	67.1
18	4939	2635	9.4	8.5	65.2
19	2788	1599	5.3	5.1	63.6
20	1906	1153	3.6	3.7	62.3
21	1445	926	2.8	3.0	60.9
22	1117	729	2.1	2.3	60.5
23	897	693	1.7	2.2	56.4
24	725	615	1.4	2.0	54.1
25	674	569	1.3	1.8	54.2
26	582	467	1.1	1.5	55.5
27	475	453	0.9	1.5	51.2
28	401	387	0.8	1.2	50.9
29	384	349	0.7	1.1	52.4
30	327	331	0.6	1.1	49.7
31	312	321	0.6	1.0	49.3
32	295	274	0.6	0.9	51.8
33	270	262	0.5	0.8	50.8
34	234	245	0.4	0.8	48.9
35	243	213	0.5	0.7	53.3
36	210	180	0.4	0.6	53.8
37	180	184	0.3	0.6	49.5
38	144	173	0.3	0.6	45.4
39	163	124	0.3	0.4	56.8
40	123	144	0.2	0.5	46.1
41	127	112	0.2	0.4	53.1
42	92	108	0.2	0.3	46.0
43	89	86	0.2	0.3	50.9
44	73	74	0.1	0.2	49.7
45	71	76	0.1	0.2	48.3
46	80	57	0.2	0.2	58.4
47	50	53	0.1	0.2	48.5
48	67	66	0.1	0.2	50.4
49	43	37	0.1	0.1	53.8
50	35	45	0.1	0.1	43.8
>50	361	337	0.7	1.1	51.7
Unknown	71	62	-	-	53.4
Total	52424	31118	100.0	100.0	62.8

Figure 3.1
Age of Driver and Method of Obtaining Provisional Licence
South Australian Drivers 1995-1998



Younger drivers (under 23 years of age) were more likely to have selected CBTA than were older drivers. The method of obtaining a Provisional Licence by the age at which the licence was obtained is shown in Table 3.3 and Figure 3.2.

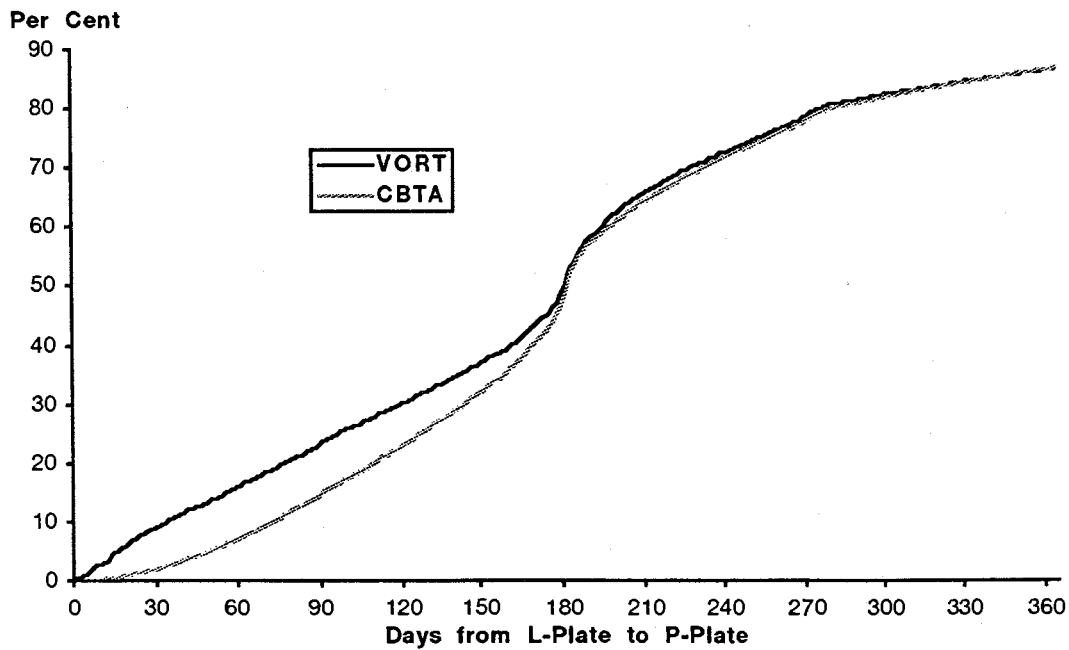
Figure 3.2
Per Cent of Drivers Obtaining a Provisional Licence by CBTA by Age of Driver
South Australian Drivers 1995-1998



3.4 Period Spent on Learner's Permit by Method of Obtaining Provisional Licence

VORT drivers tended to spend less time on a Learner's Permit before obtaining their first Provisional Licence compared to CBTA drivers. However, six months after obtaining their first learners permit, half of both the CBTA and VORT groups had obtained their first Provisional Licence and the pattern for both groups was very similar after that (Figure 3.3). Thirteen per cent of both groups of drivers took more than 1 year after getting their first Learner's Permit to finally get their first Provisional Licence.

Figure 3.3
Cumulative Per Cent of Drivers Obtaining a Provisional Licence
by CBTA and VORT by Period spent on Learner's Permit
South Australian Drivers 1995-1998



3.5 Socio-economic Status and Method of Obtaining Provisional Licence

The post code of the driver's place of residence at the time of obtaining their first Learner's Permit was used, in conjunction with the Social Health Atlas of South Australia, as a crude measure of socio-economic status. The Social Health Atlas lists the percentage of families with a total income of less than \$21,000 a year for each local government area in South Australia. For the purposes of this study, "Upper" socio-economic status is defined as those post code areas in which 25.0 per cent or more of families have an annual income that is \$21,000 or more, "Middle" is 20.0 to 24.9 per cent, and "Lower" is less than 20.0 per cent.

Unfortunately, there was no information supplied from the licensing database on post code for 51 per cent of the drivers in this study (Table 3.4). An attempt was made to investigate this further but for the present purposes we have no option but to make use of the information that is available. Table 3.4 also shows that drivers with known post codes were much more likely to have taken CBTA than drivers with unknown post codes. This means that the known post code group is not representative of the whole group.

Table 3.4
Post Code of Driver's Place of Residence
and Method of Obtaining Provisional Licence
South Australian Drivers 1995-1998

Post Code	CBTA	VORT	Total	% CBTA
Unknown	24482	17905	42387	57.8
Known	27942	13213	41155	67.9
Total	52424	31118	83542	62.8

There was a clear, but not very strong, positive association between socio-economic status and drivers' selecting CBTA, rather than VORT, as a means of obtaining a Provisional Licence (Table 3.5).

Table 3.5
Socio-Economic Status and Method of Obtaining Provisional Licence
Metropolitan Adelaide Drivers 1995-1998

Status	CBTA	VORT	Total	% CBTA
Upper: metro	5969	2822	8791	67.9
Middle: metro	3486	1776	5262	66.2
Lower: metro	2913	1781	4694	62.1
Other/Unknown	40056	24739	64795	61.8
Total	52424	31118	83542	62.8

4. PROVISIONAL LICENSING PROCEDURE AND SUBSEQUENT CRASH INVOLVEMENT

Data concerning the accident history of drivers who obtained a Provisional Licence in the period from 1995 to 1997 inclusive was drawn from the South Australian Traffic Accident Reporting System (TARS) database. Any accident reported to the police, including those that only resulted in property damage, was identified for the purpose of this study.

4.1 Number of Crashes During First Year After Obtaining Provisional Licence

As interest was concentrated on crash experience in the first year of driving after obtaining a Provisional Licence, this section of the report omits those drivers who obtained their Provisional Licence in 1998 because crash data was not available for 1999 when these analyses were being conducted. The number of crashes per driver during the first year after obtaining a Provisional Licence in the period from 1995 to 1997 did not differ according to the licensing procedure (Table 4.1).

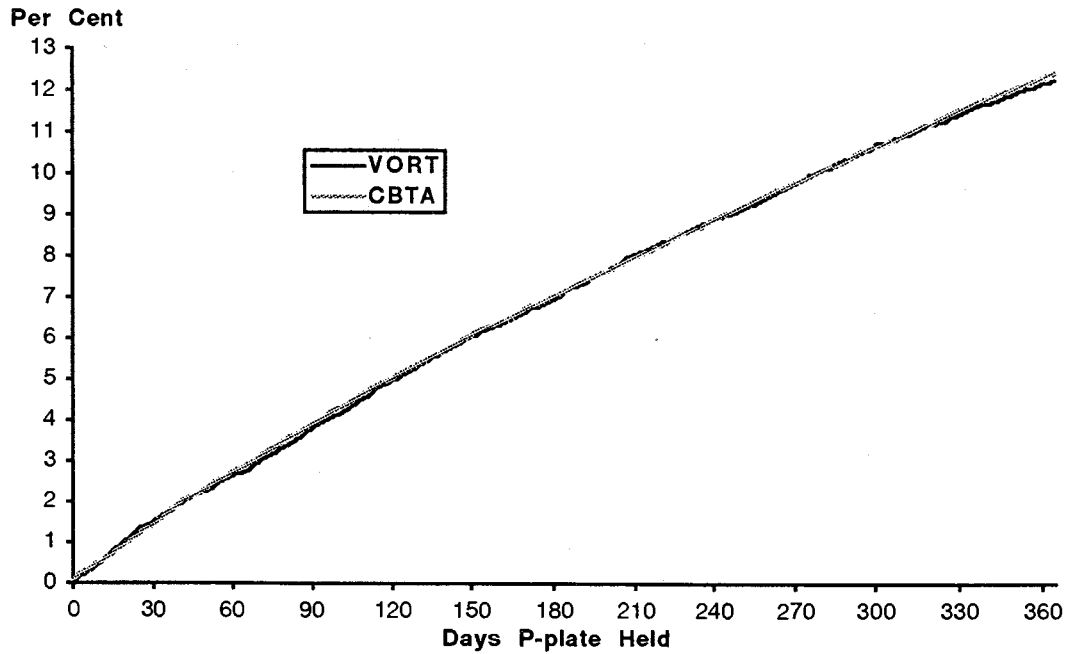
Table 4.1
Number of Crashes During First Year After Obtaining Provisional Licence
for Drivers Obtaining Provisional Licence in 1995-1997

Number of Crashes	CBTA (N)	VORT (N)	CBTA (%)	VORT (%)
0	32239	21274	87.60	87.76
1	4148	2695	11.27	11.12
2	383	251	1.04	1.04
3	30	22	0.08	0.09
4	1	0	0.00	0.00
5	1	0	0.00	0.00
Total	36802	24242	100.00	100.00

The following comparisons are based on the first crash, if any, experienced by a driver in their first year of driving on a Provisional Licence.

There was no difference in the crash rates between the two groups of drivers (CBTA and VORT) at any time up to a year after obtaining a Provisional Licence (Figure 4.1).

Figure 4.1
Cumulative Per Cent of Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence
in 1995-1997 and the Method of Obtaining the Licence (n=61044)



The length of time a driver held a Learner's Permit before obtaining a Provisional Licence does not appear to have any effect on accident experience in the first year of driving on a Provisional Licence (Figures 4.2 and 4.3).

Figure 4.2
Cumulative Per Cent of Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
in 6 Months or Less After Obtaining a Learner's Permit
and the Method of Obtaining the Licence (n=32922)

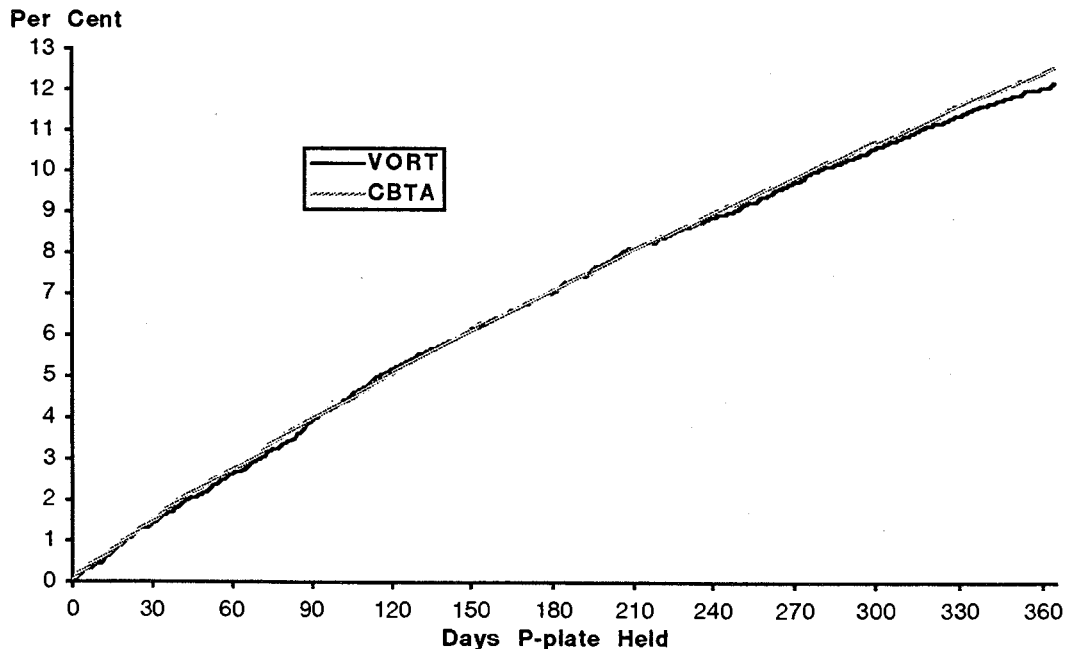
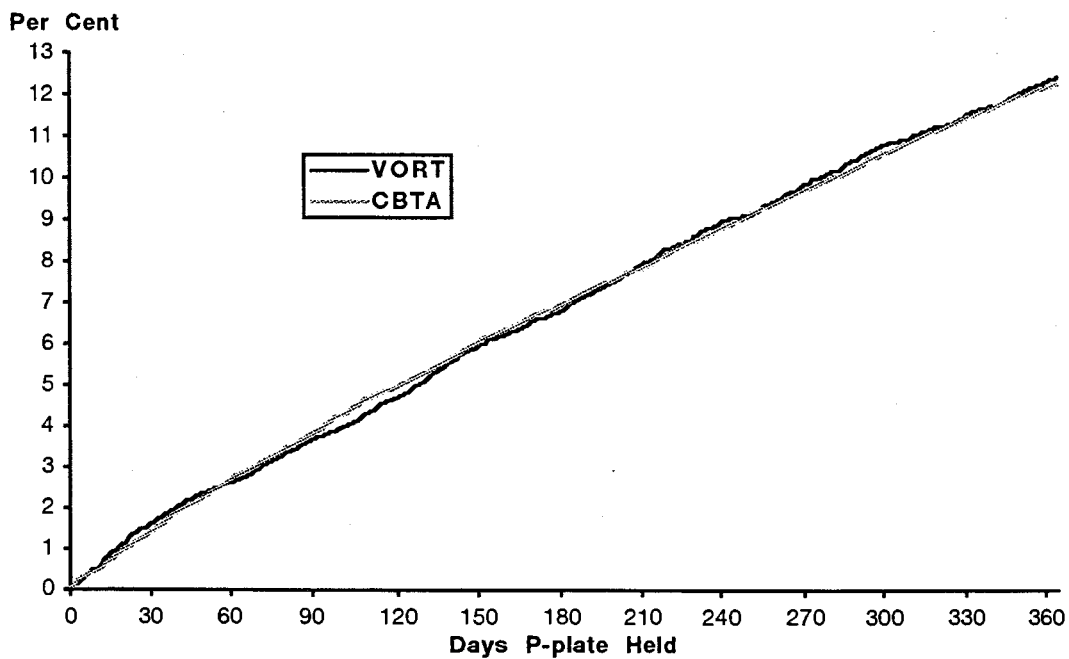


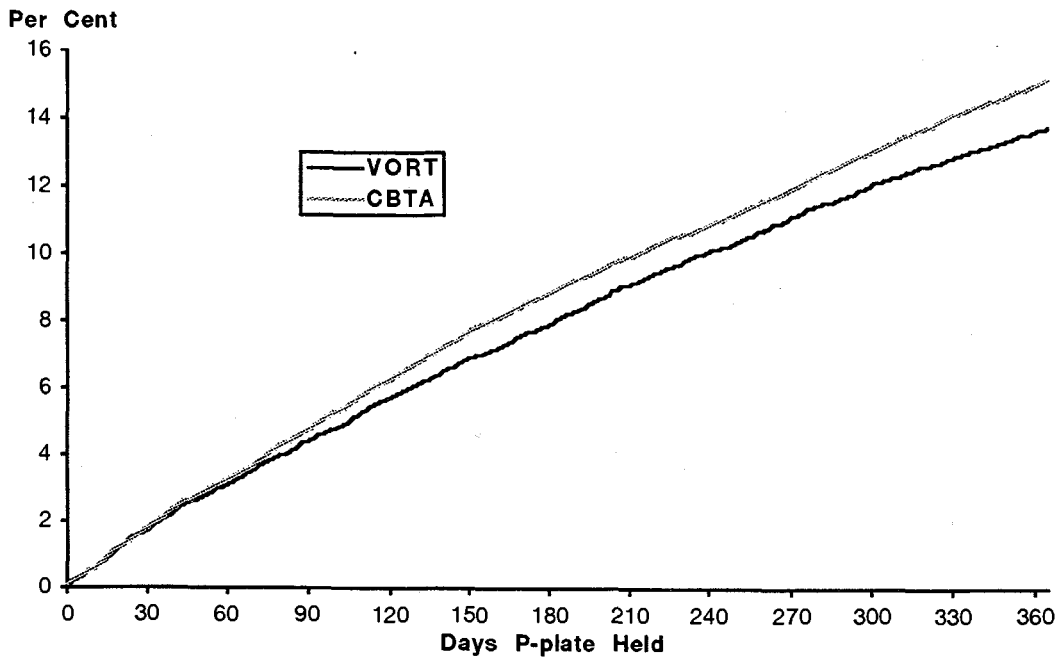
Figure 4.3
Cumulative Per Cent of Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
in More than 6 Months After Obtaining a Learner's Permit
and the Method of Obtaining the Licence (n=28122)



4.2 Crash Experience by Sex of Driver and Method of Obtaining a Provisional Licence

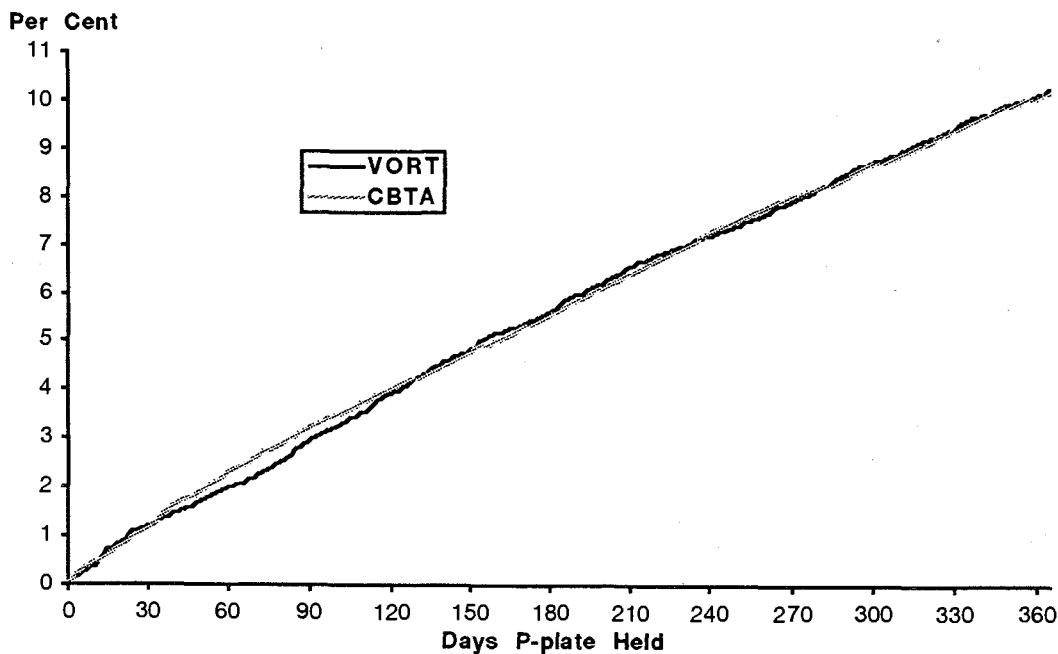
Male drivers who obtained a Provisional Licence by means of CBTA had a higher rate of crashes than those who chose to take the VORT (Figure 4.4). It is not clear to what extent this is due to any characteristics of the two licensing procedures and/or to any differences between the two groups of male drivers.

Figure 4.4
Cumulative Per Cent of Male Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=30123)



Unlike the male drivers, during the first year after obtaining a Provisional Licence the crash experience of the female drivers does not differ meaningfully between those who took the VORT and those who chose CBTA (Figure 4.5).

Figure 4.5
Cumulative Per Cent of Female Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=30134)



The higher rate of crash involvement among males who took CBTA is masked in the total group (Figure 4.1) by the female drivers who are safer overall (about 10 per cent have at least one crash in the first year, as shown in Figure 4.5, compared to about 14 per cent for male drivers) and more likely to choose CBTA (see Table 3.2).

4.3 Crash Experience by Age of Driver and Method of Obtaining a Provisional Licence

About 40 per cent of both CBTA and VORT drivers get their Provisional Licence when they are 16 years of age (see Table 3.3). As with the whole sample of drivers in this study, there is no meaningful difference in crash rate among 16 year old drivers between the CBTA and VORT groups (Figure 4.6). However, the drivers who were 17 and 18 years of age when they got their Provisional Licence by CBTA had slightly lower crash rates than did those who chose to take the VORT (Figures 4.7 and 4.8). This difference was not apparent for drivers who were 19 years of age when they obtained a Provisional Licence, nor for older drivers to any meaningful degree (Figures 4.9 and 4.10). It should be noted here that sex differences in CBTA/VORT selection, crash rates and age of obtaining a Provisional Licence mean that Figures 4.6 to 4.10 are subject to possible sex related artefacts. For an examination of this see the next section where the age and sex of the drivers are both analysed.

Figure 4.6
Cumulative Per Cent of 16 Year Old Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=24955)

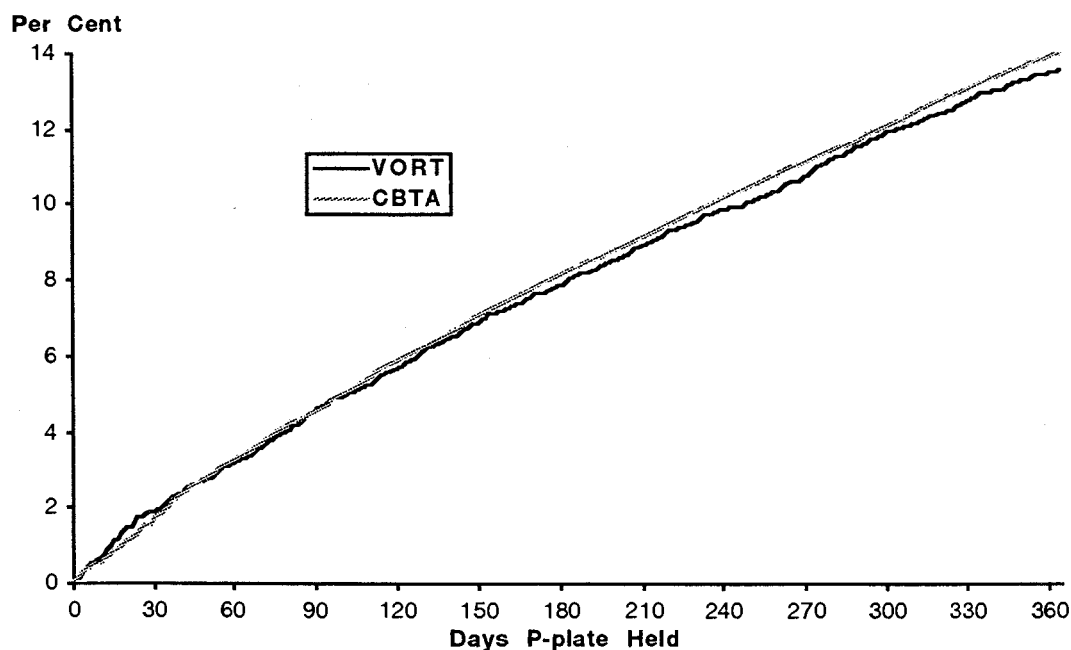


Figure 4.7
Cumulative Per Cent of 17 Year Old Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=10496)

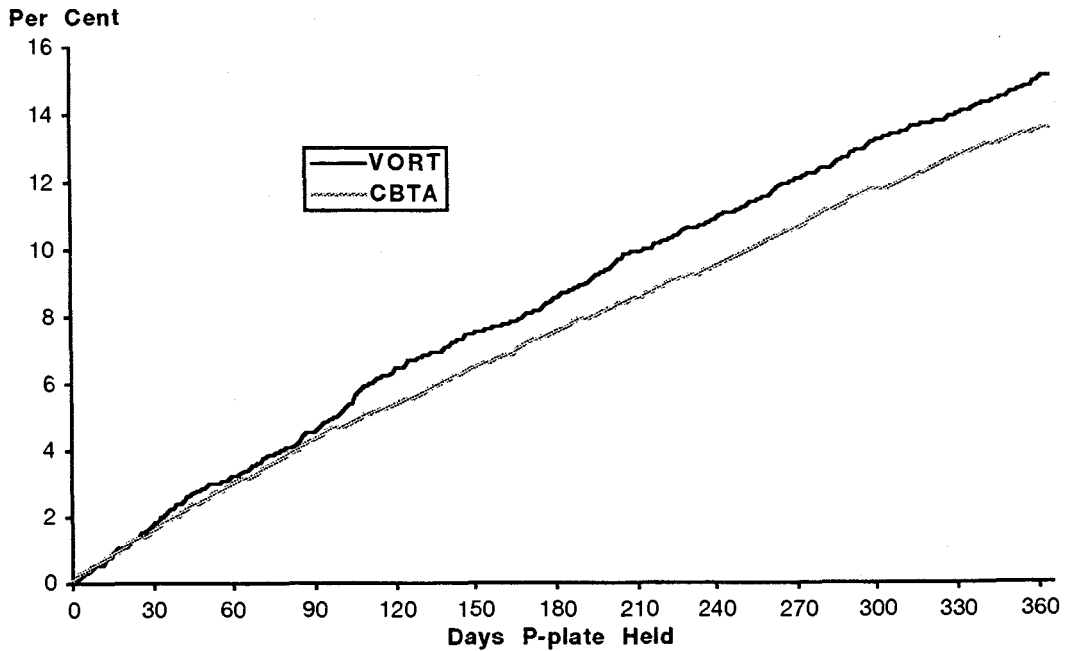


Figure 4.8
Cumulative Per Cent of 18 Year Old Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=5567)

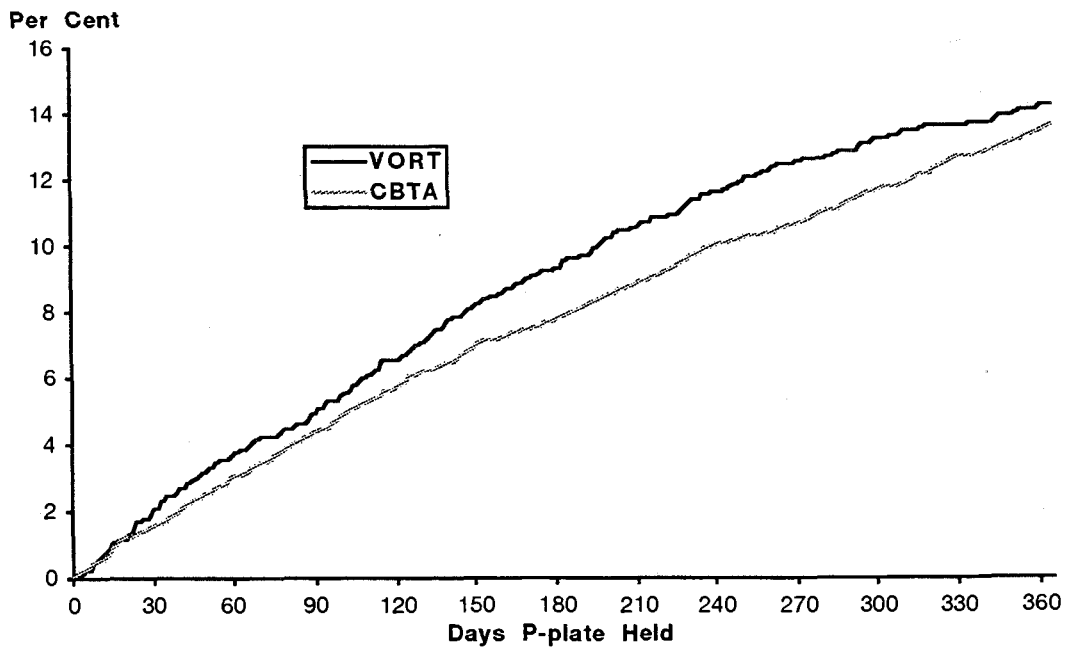


Figure 4.9
Cumulative Per Cent of 19 Year Old Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=3287)

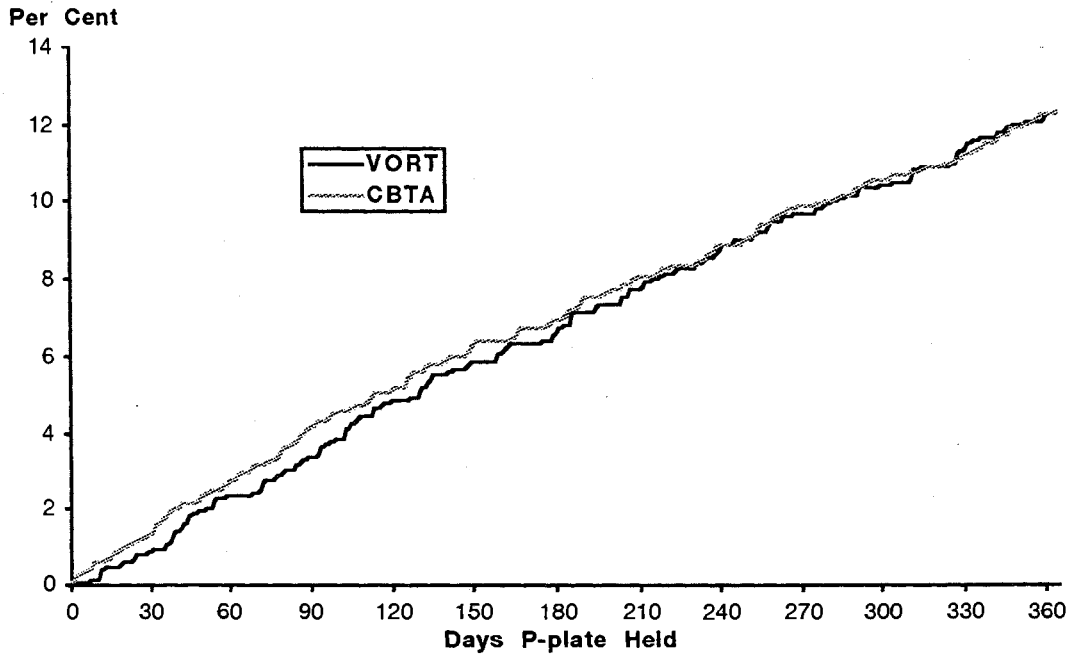
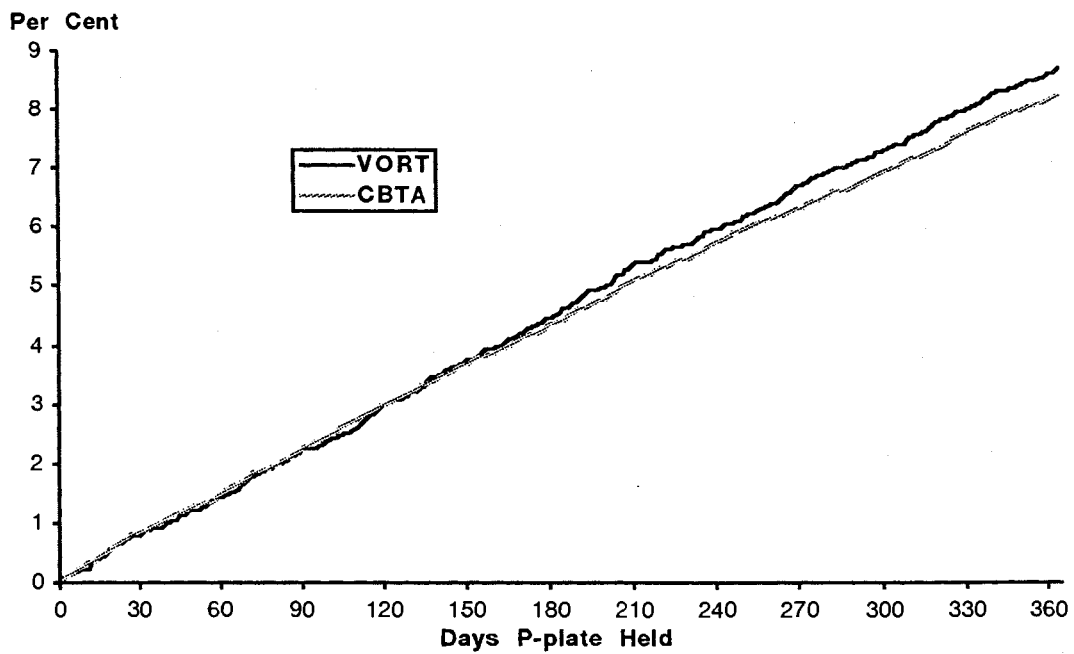


Figure 4.10
Cumulative Per Cent of Drivers Over 19 Years of Age Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=16619)



4.4 Crash Experience by Age and Sex of Driver and Method of Obtaining a Provisional Licence

By examining both the sex of the drivers and their age at the time of obtaining a Provisional Licence, confounding of the crash rates by age and sex differences in the CBTA and VORT groups is removed. Figures 4.11 to 4.18 show the crash rates during the first year for males and females in different age groups. It is apparent that 16 and 19+ year old males taking the VORT had lower crash rates than those taking CBTA while 17 year old males taking CBTA had lower crash rates than those taking the VORT. Among the females only those aged 18 showed a lower crash rate for CBTA compared to the VORT.

There is no consistent pattern in crash rates between the VORT and CBTA groups when taking sex and age differences into account and even the differences that were apparent may be due to other unknown differences between the type of people choosing the VORT or CBTA method of obtaining a licence.

Figure 4.11
Cumulative Per Cent of 16 Year Old Male Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=13953)

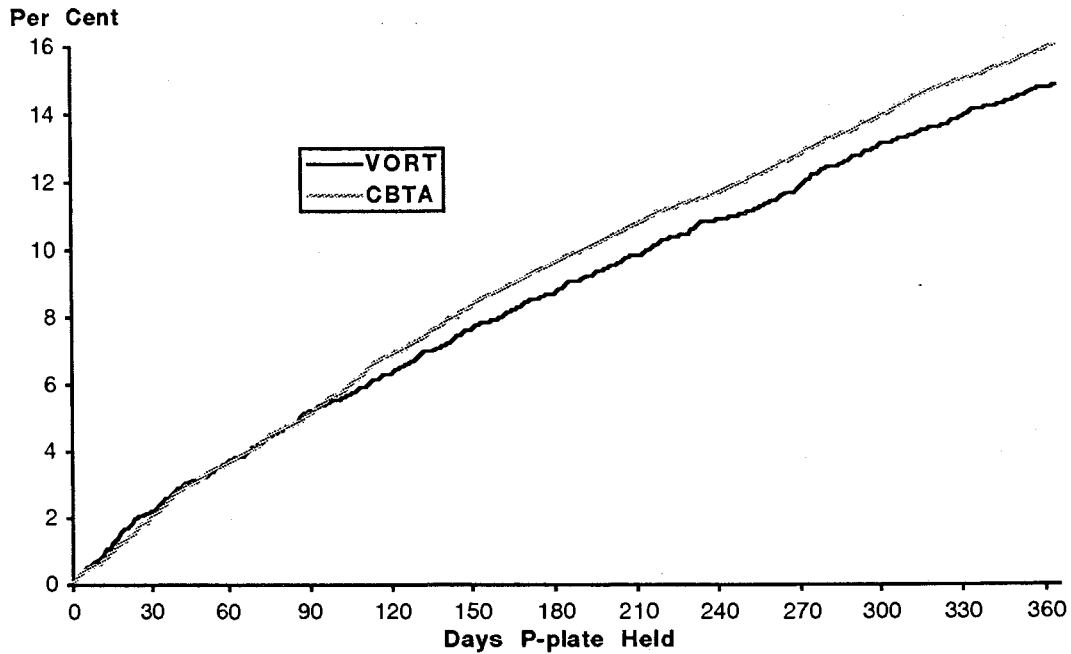


Figure 4.12
Cumulative Per Cent of 16 Year Old Female Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=10797)

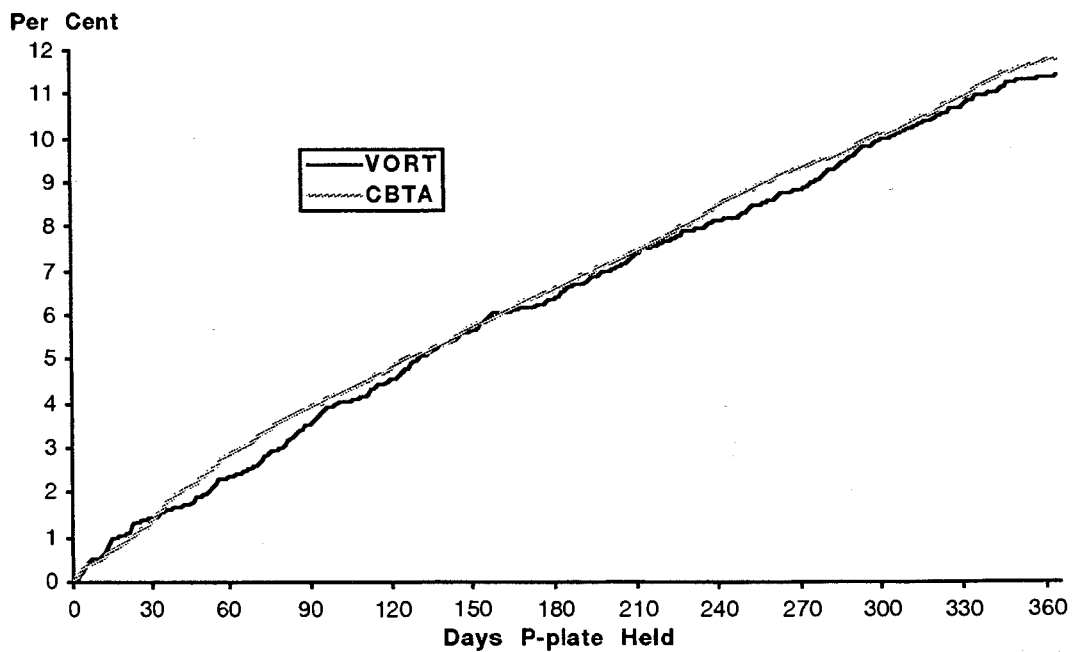


Figure 4.13
Cumulative Per Cent of 17 Year Old Male Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=5264)

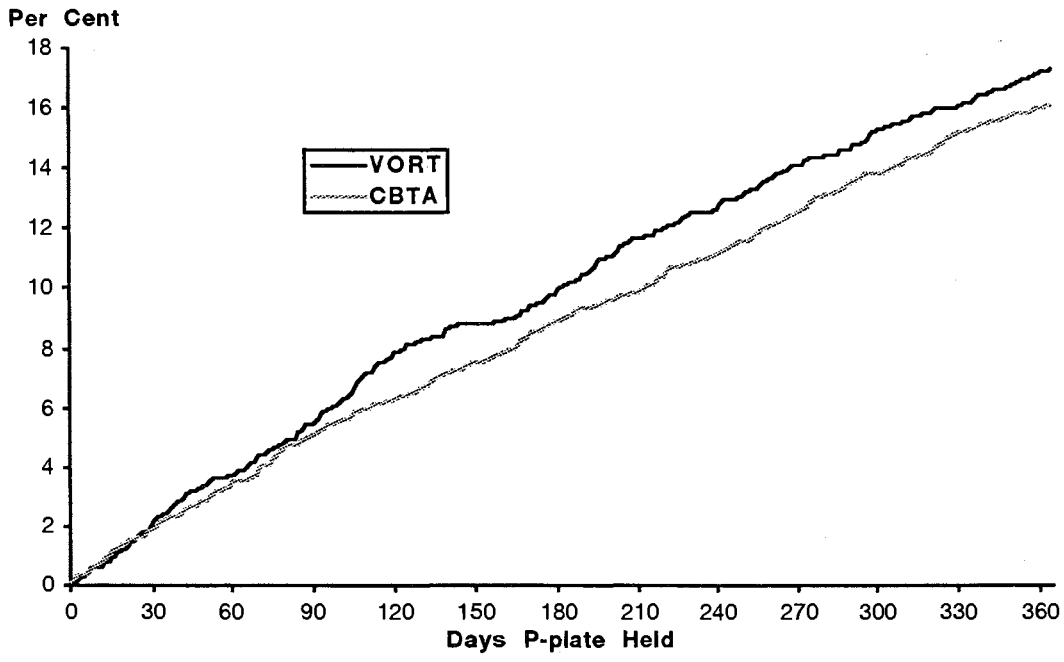


Figure 4.14
Cumulative Per Cent of 17 Year Old Female Drivers Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=5148)

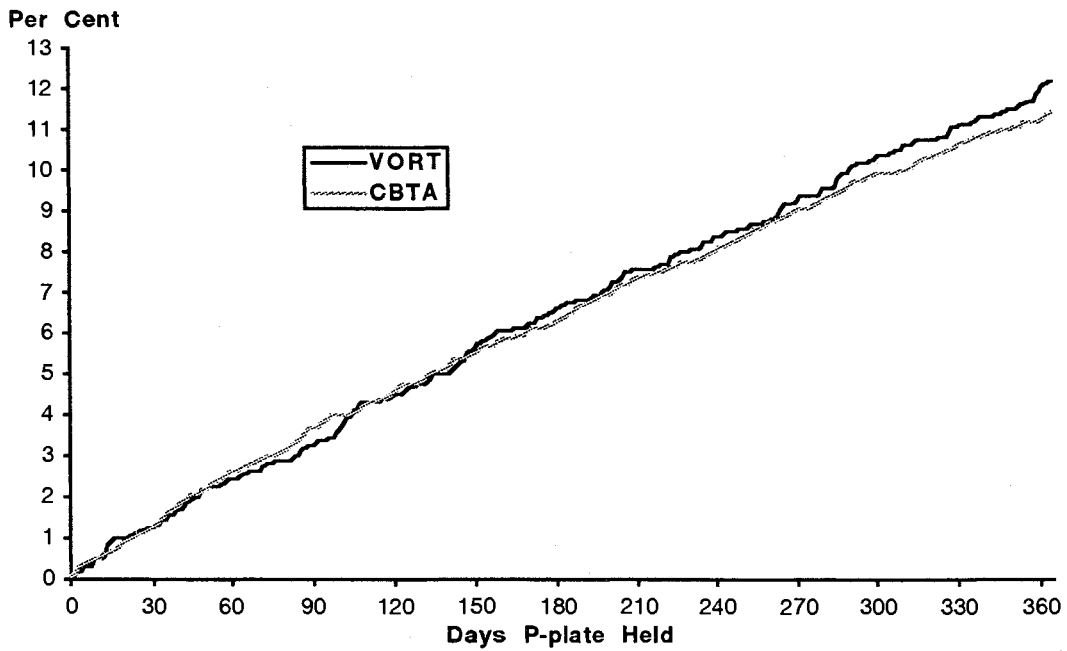


Figure 4.15
 Cumulative Per Cent of 18 Year Old Male Drivers Involved in a Crash of Any Severity
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and Method of Obtaining the Licence (n=2651)

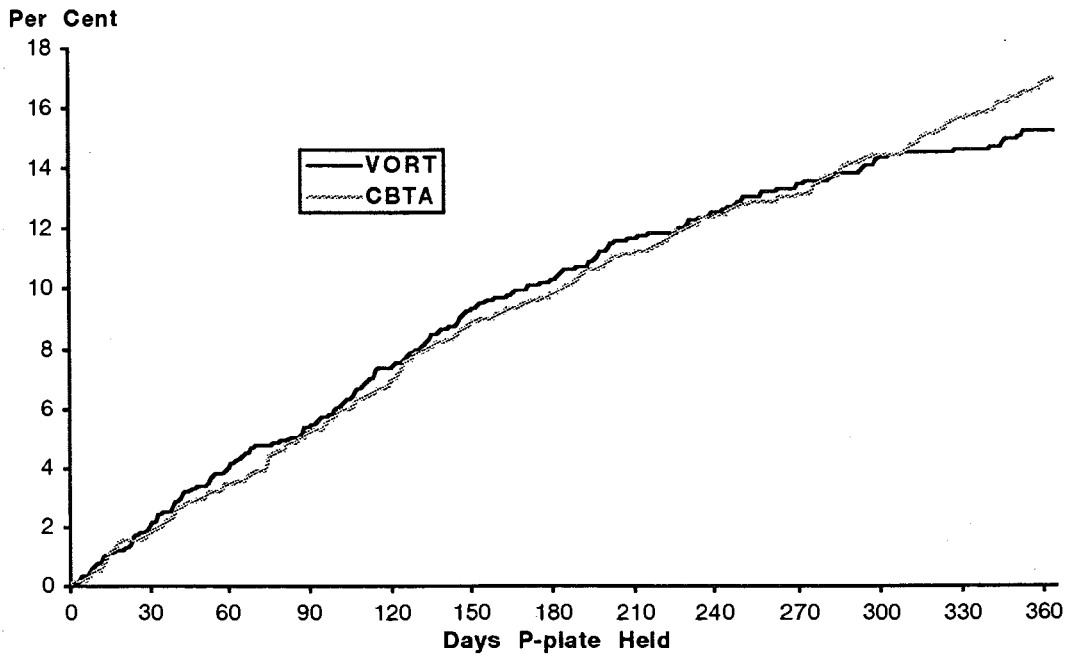


Figure 4.16
 Cumulative Per Cent of 18 Year Old Female Drivers Involved in a Crash of Any Severity
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and Method of Obtaining the Licence (n=2872)

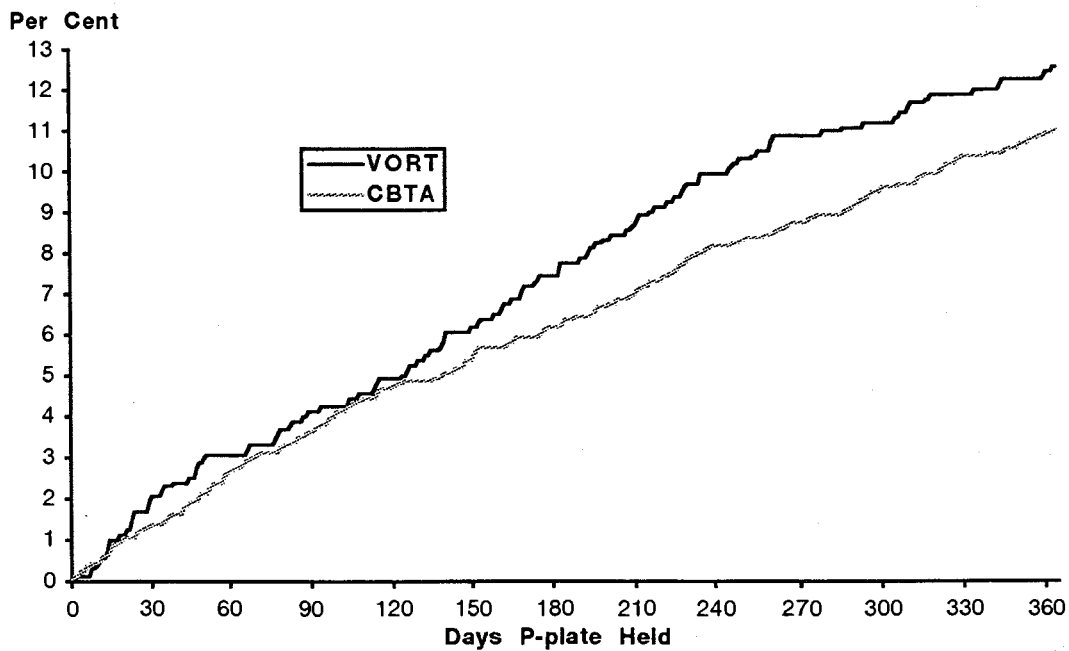


Figure 4.17
Cumulative Per Cent of Male Drivers over 18 Years of Age
Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=8255)

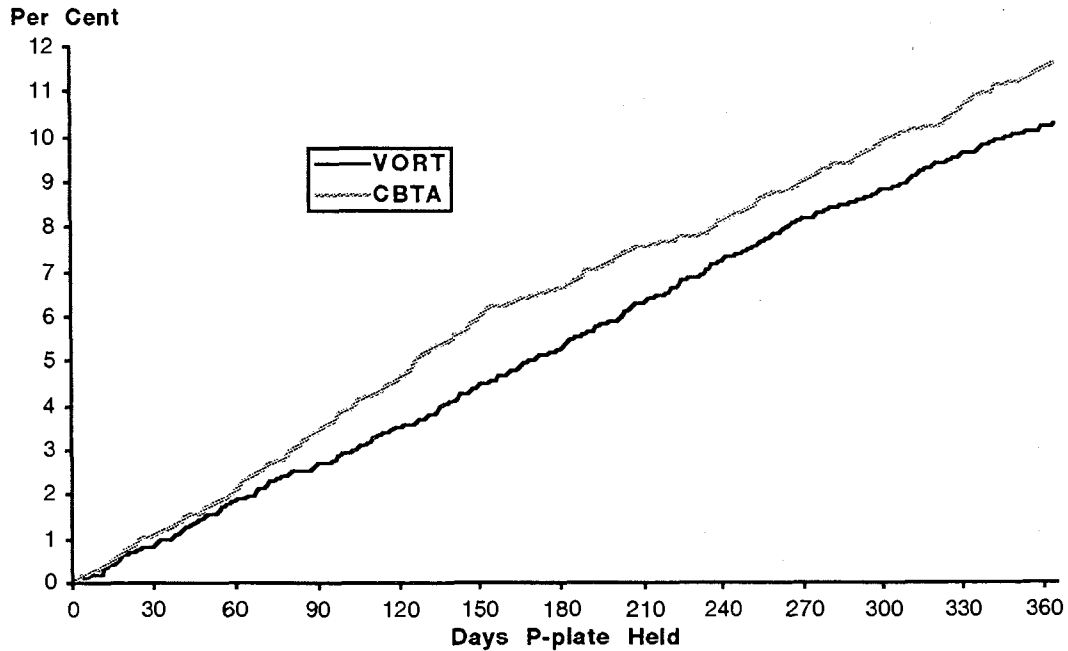
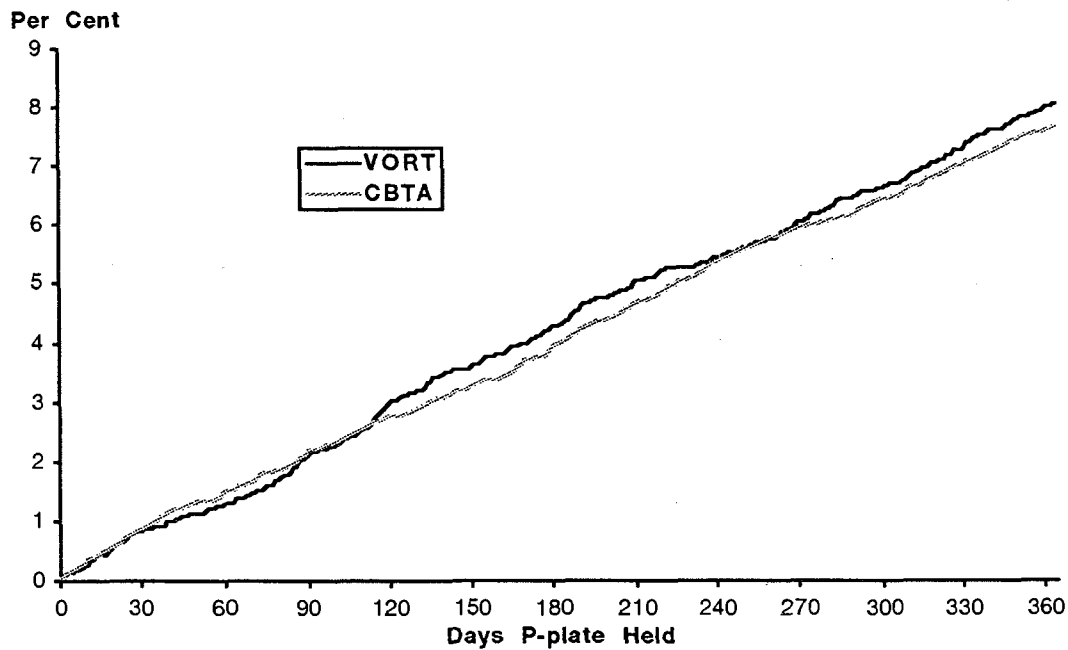


Figure 4.18
Cumulative Per Cent of Female Drivers over 18 Years of Age
Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and Method of Obtaining the Licence (n=11317)



4.5 Crash Experience by Socio-Economic Status of Driver and Method of Obtaining a Provisional Licence

The reader is reminded that no assignment of socio-economic status was attempted for the half of the drivers who had no post code information available. The comparisons by socio-economic status shown in the following Figures are also restricted to the Adelaide metropolitan area.

As noted earlier in this report (Table 3.5), those drivers who resided in higher socio-economic areas when they obtained their Learner's Permit were more likely to go on to obtain a Provisional Licence by CBTA than by VORT. There were no differences by socio-economic status in the percentage of drivers who had at least one crash in the first year of driving after obtaining their Provisional Licence but drivers from upper and middle socio-economic areas who did take CBTA had lower crash rates during the first year of driving than did the drivers from those areas who took the VORT (Figures 4.19 and 4.20). However, there was no difference of this type among drivers from the lower socio-economic areas in the first 6 months of driving and an irregular relationship between the crash records of the two groups in the latter part of the first year (Figure 4.21).

Figure 4.19
Cumulative Per Cent of Upper Socio-Economic Class Adelaide Drivers
Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=4762)

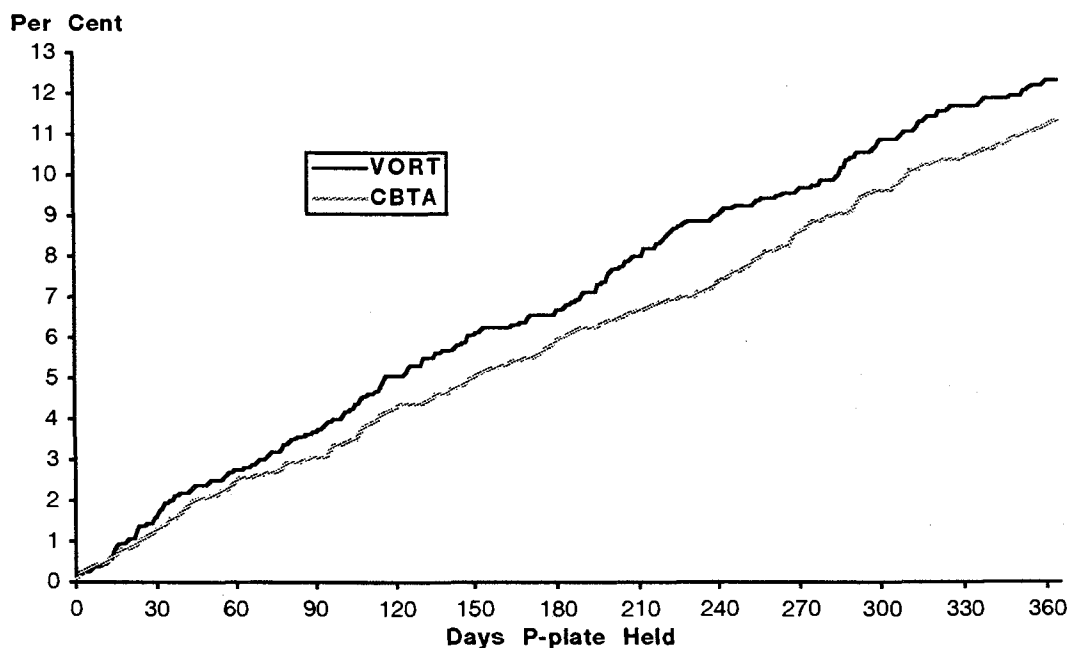


Figure 4.20
Cumulative Per Cent of Middle Socio-Economic Class Adelaide Drivers
Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=2897)

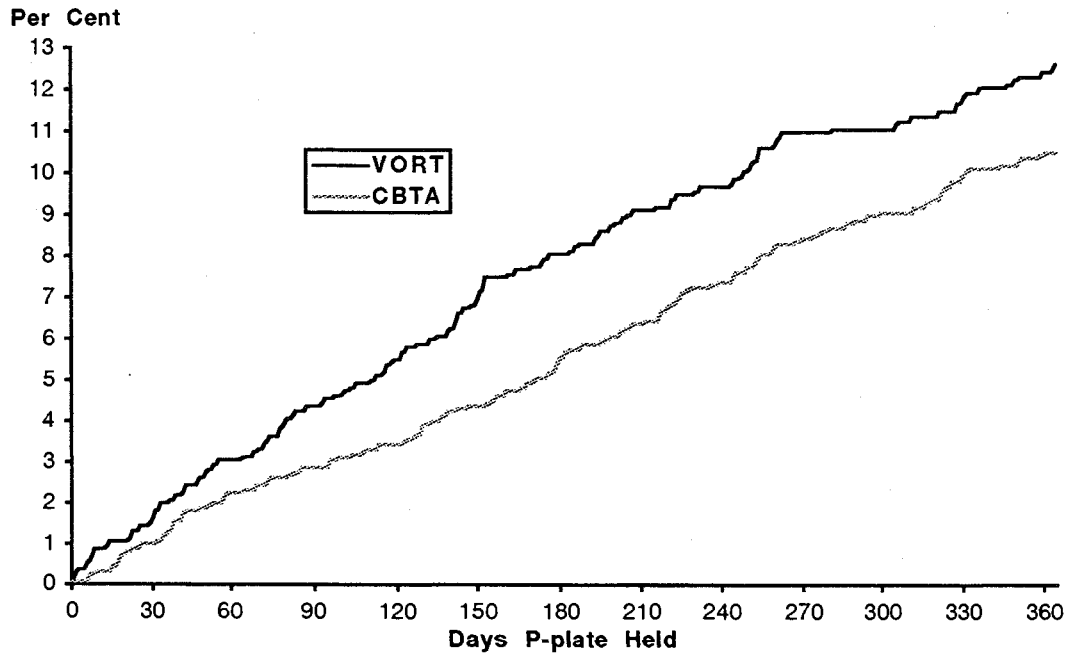
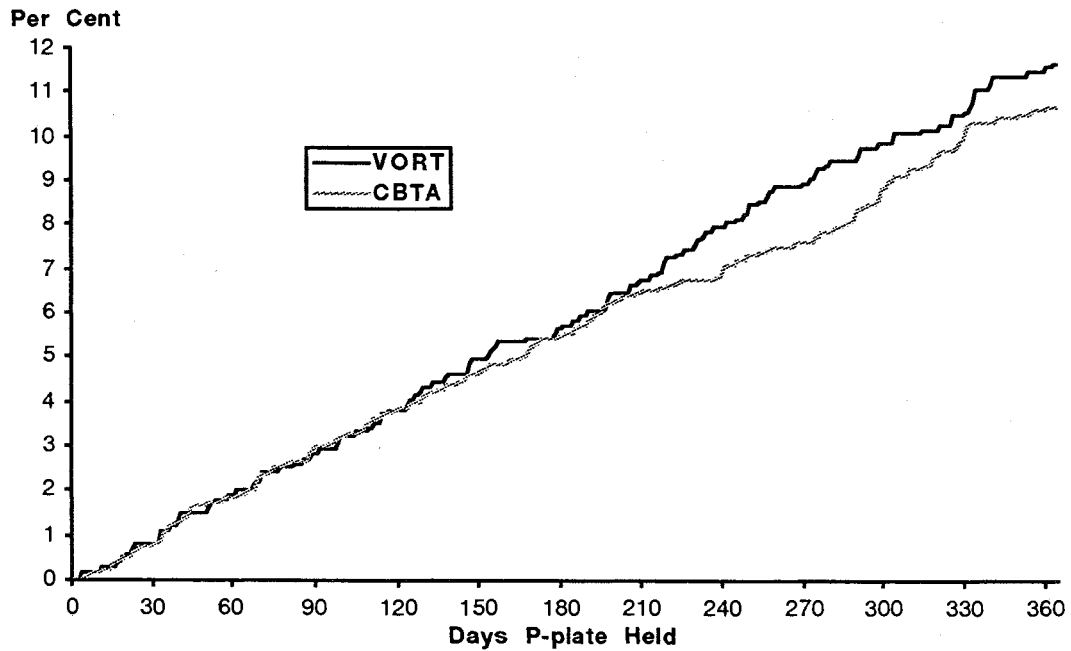


Figure 4.21
Cumulative Per Cent of Lower Socio-economic Class Adelaide Drivers
Involved in a Crash of Any Severity
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=2561)



5. CASUALTY CRASHES

The comparisons in the previous section were based on all accidents that had been reported to the police. In the case of crashes which resulted only in property damage there are many possible sources of bias in reporting. However, if someone is injured in the accident then it is much more likely that it will be reported to the police. For this reason, as well as the fact that casualty crashes are of much greater concern than property damage crashes, this section of the report compares the casualty crash rates of the two groups of Provisional Licence holders as recorded in the South Australian Traffic Accident Reporting System (TARS) data base. A casualty crash is defined here as one in which any participant in the crash is injured.

As with the crashes of all severities, information was not available for casualty crashes for all of 1999 and so the following comparisons are based on the first 12 months experience of drivers who obtained their Provisional Licence in the four year period 1995 to 1997, which includes casualty crash data for the years 1995 to 1998.

5.1 Number of Crashes During First Year After Obtaining Provisional Licence

The number of casualty crashes per driver during the first year after obtaining a Provisional Licence in the period from 1995 to 1997 did not differ to any meaningful degree according to the procedure by which the Licence was obtained, as shown in Table 5.1. Only 0.04 per cent of these drivers were involved in more than one casualty crash in the first 12 months and so the following comparisons are based on the first casualty crash, if any, experienced by a driver in that first year of driving on a Provisional Licence.

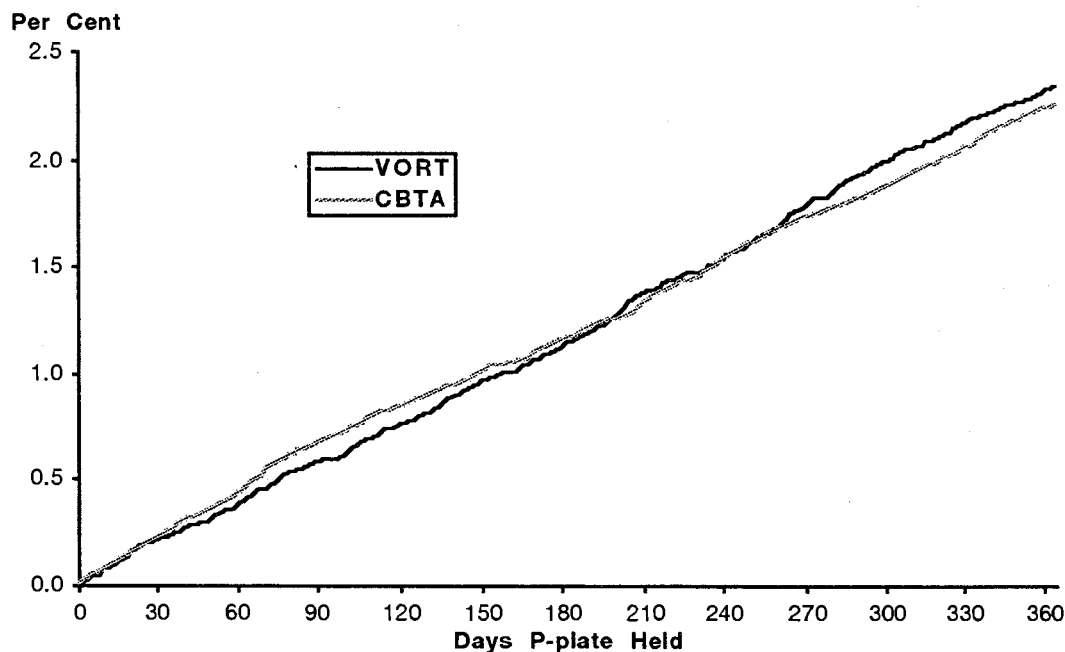
The much smaller number of crashes under consideration here limits the usefulness of some comparisons.

Table 5.1
Number of Casualty Crashes During First Year After Obtaining Provisional Licence
for Drivers Obtaining Provisional Licence in 1995-1997 (n=61044 drivers)

Number of Crashes	CBTA (N)	VORT (N)	CBTA (%)	VORT (%)
0	35972	23674	97.74	97.66
1	815	559	2.21	2.31
2	15	9	0.04	0.04
Total	36802	24242	100.00	100.00

There was no consistent or meaningful difference in the casualty crash rates between the two groups of drivers (CBTA and VORT) at any time up to a year after obtaining a Provisional Licence (Figure 5.1).

Figure 5.1
Cumulative Per Cent of Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=61044)



5.2 Casualty Crash Experience by Sex of Driver and Method of Obtaining a Provisional Licence

There was a slight indication that male drivers who obtained a Provisional Licence by means of CBTA had a higher rate of casualty crashes than those who chose to take the VORT (Figure 5.2). That was not the case with female drivers for whom there was no difference between the two groups during the first 9 months after licensure followed by an indication in the remaining 3 months that the CBTA group had a slightly lower rate of casualty crashes (Figure 5.3).

Figure 5.2
 Cumulative Per Cent of Male Drivers Involved in a Casualty Crash
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and the Method of Obtaining the Licence (n=30123)

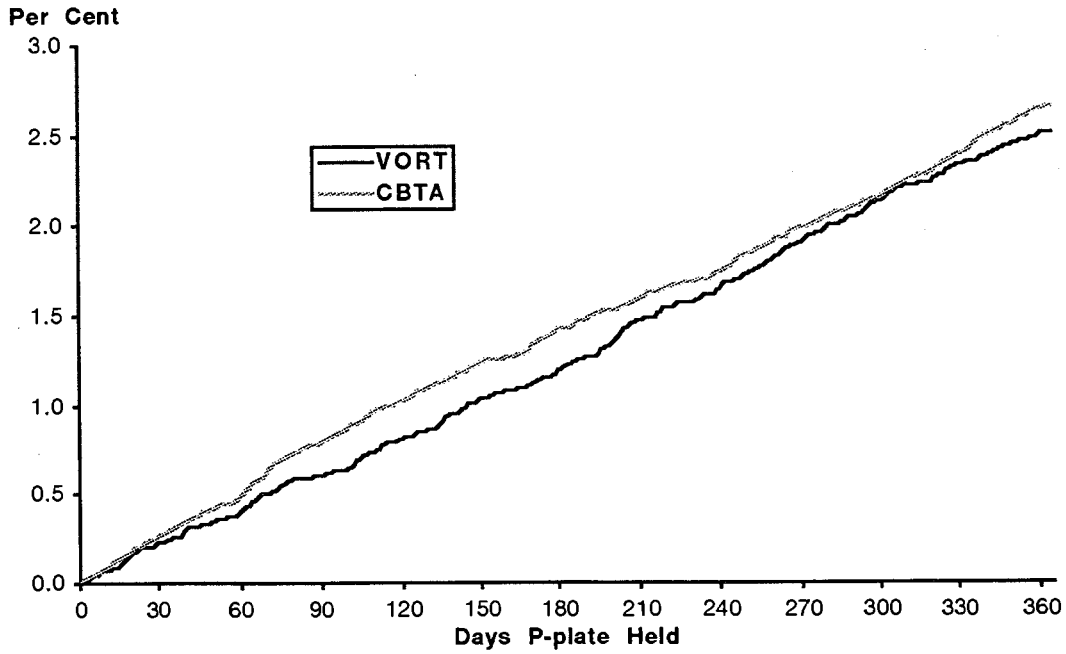
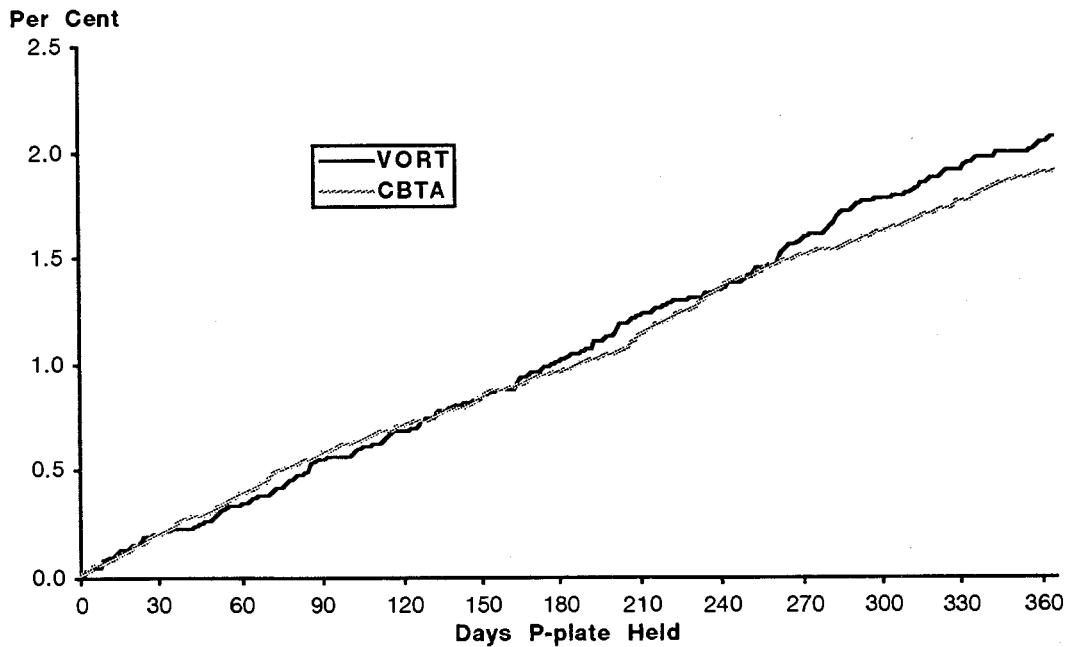


Figure 5.3
 Cumulative Per Cent of Female Drivers Involved in a Casualty Crash
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and the Method of Obtaining the Licence (n=30134)



5.3 Casualty Crash Experience by Age of Driver and Method of Obtaining a Provisional Licence

The results for casualty crash experience by age of driver and method of obtaining a Provisional Licence essentially mirror those for crashes of all severities. No meaningful difference in casualty crash rate was found among 16 year old drivers and 19 year old or older drivers between the CBTA and VORT groups (Figure 5.4, 5.7 and 5.8). However, the drivers who were 17 and 18 years of age when they got their Provisional Licence by CBTA had slightly lower casualty crash rates than did those who chose to take the VORT (Figures 5.5 and 5.6). It should be noted here that sex differences in CBTA/VORT selection, crash rates and age of obtaining a Provisional Licence mean that Figures 5.4 to 5.8 are subject to possible sex related artefacts. For an examination of this see the next section where the age and sex of the drivers are both analysed.

Figure 5.4
Cumulative Per Cent of 16 Year Old Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=24955)

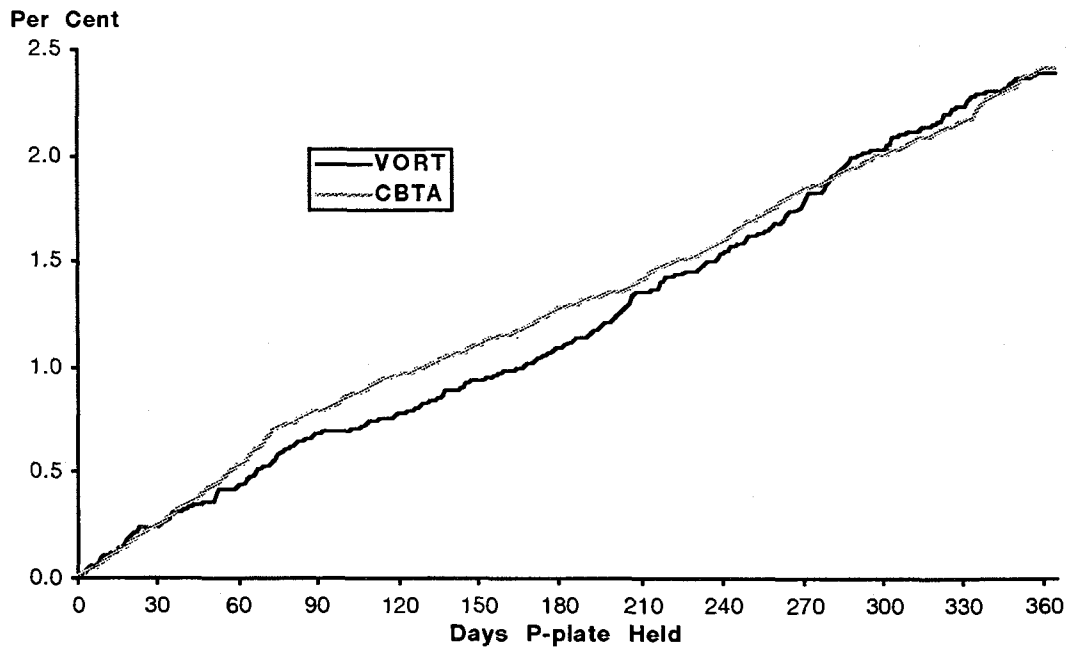


Figure 5.5
Cumulative Per Cent of 17 Year Old Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=10496)

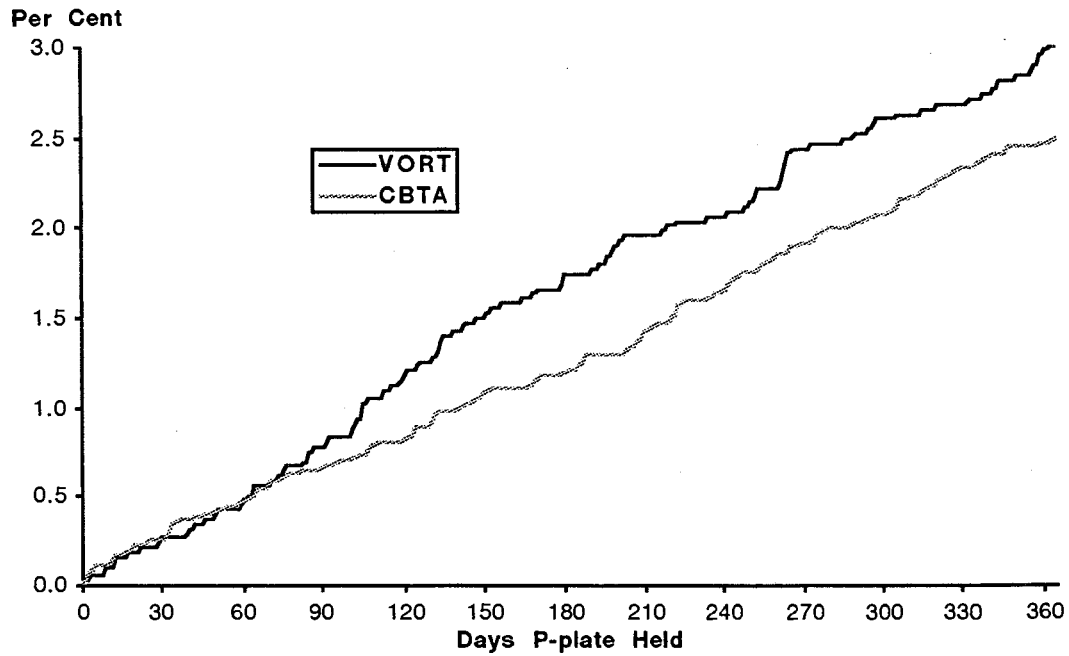


Figure 5.6
Cumulative Per Cent of 18 Year Old Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=5567)

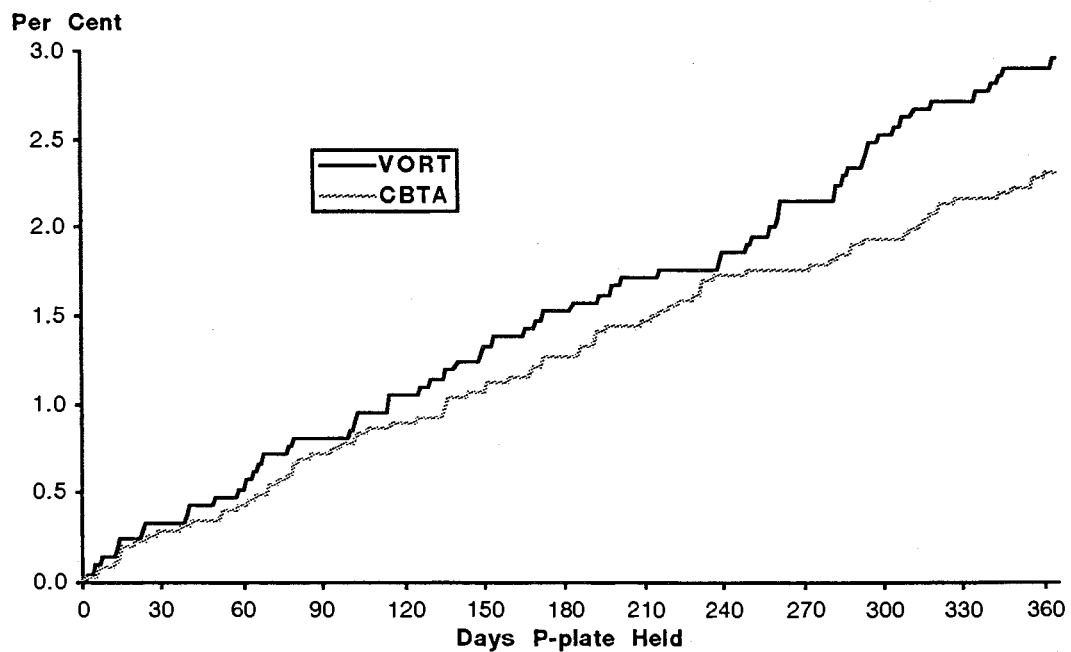


Figure 5.7
Cumulative Per Cent of 19 Year Old Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=3287)

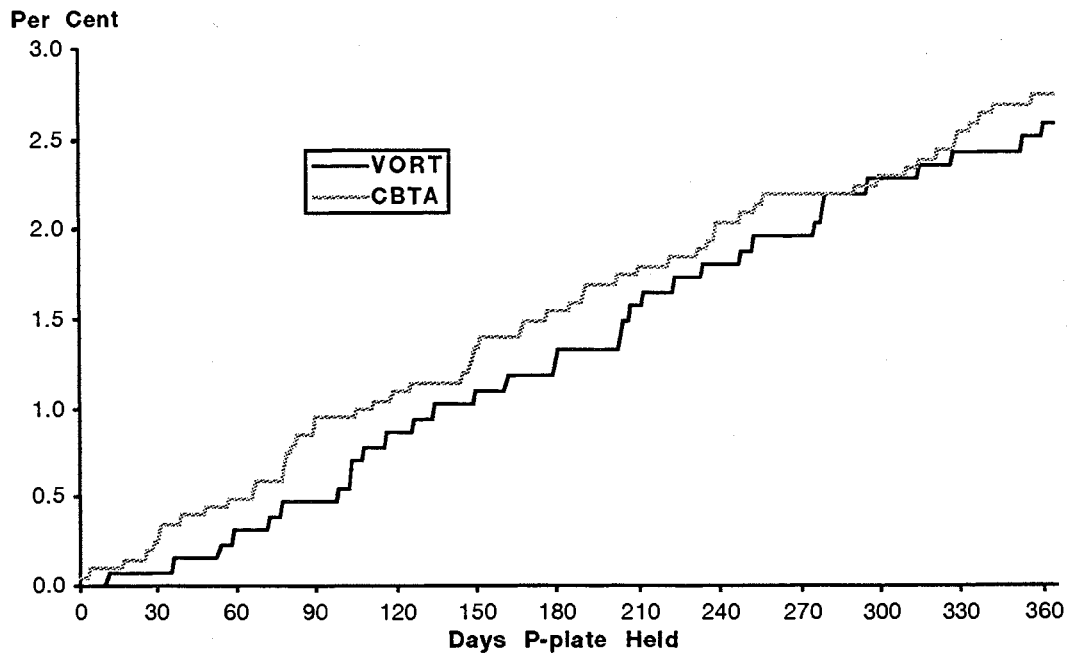
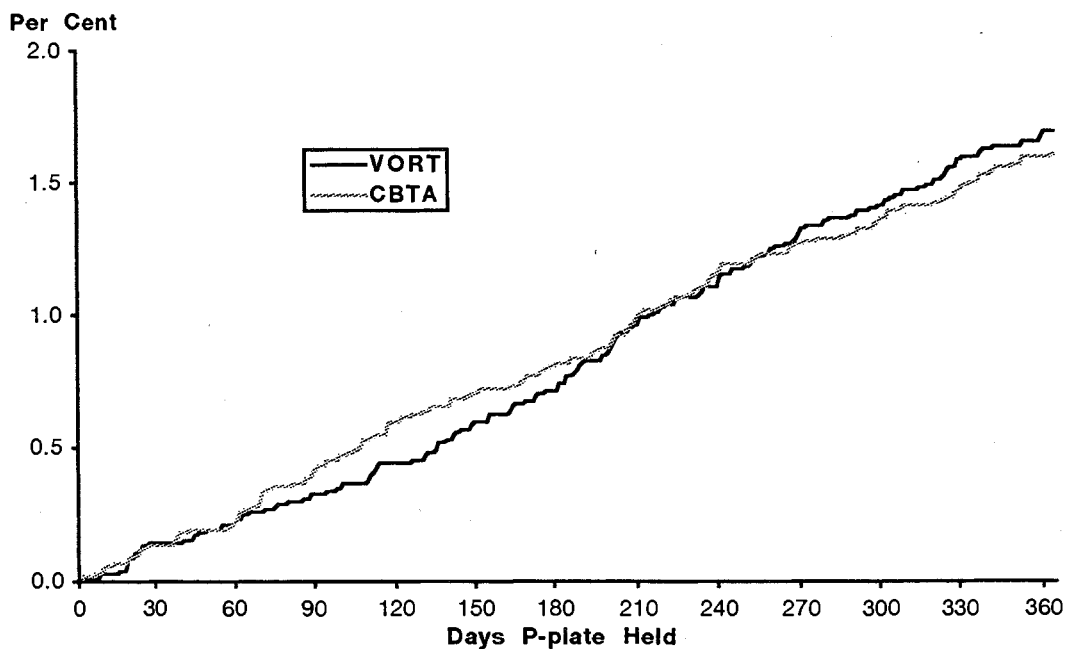


Figure 5.8
Cumulative Per Cent of 20+ Year Old Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=16619)



5.4 Casualty Crash Experience by Age and Sex of Driver and Method of Obtaining a Provisional Licence

By examining both the sex of the drivers and their age at the time of obtaining a Provisional Licence, confounding of the casualty crash rates by age and sex differences in the CBTA and VORT groups is removed. Figures 5.9 to 5.14 show the casualty crash rates during the first year for males and females in different age groups. It is apparent that 16 and 18+ year old males taking the VORT had lower casualty crash rates than those taking CBTA while 17 year old males taking CBTA had lower casualty crash rates than those taking the VORT. Among the females those aged less than 18 showed a slightly lower casualty crash rate for CBTA compared to the VORT.

There is no consistent pattern in casualty crash rates between the VORT and CBTA groups when taking sex and age differences into account and even the differences that were apparent may be due to other unknown differences between the type of people choosing the VORT or CBTA method of obtaining a licence.

Figure 5.9
Cumulative Per Cent of 16 Year Old Male Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=13953)

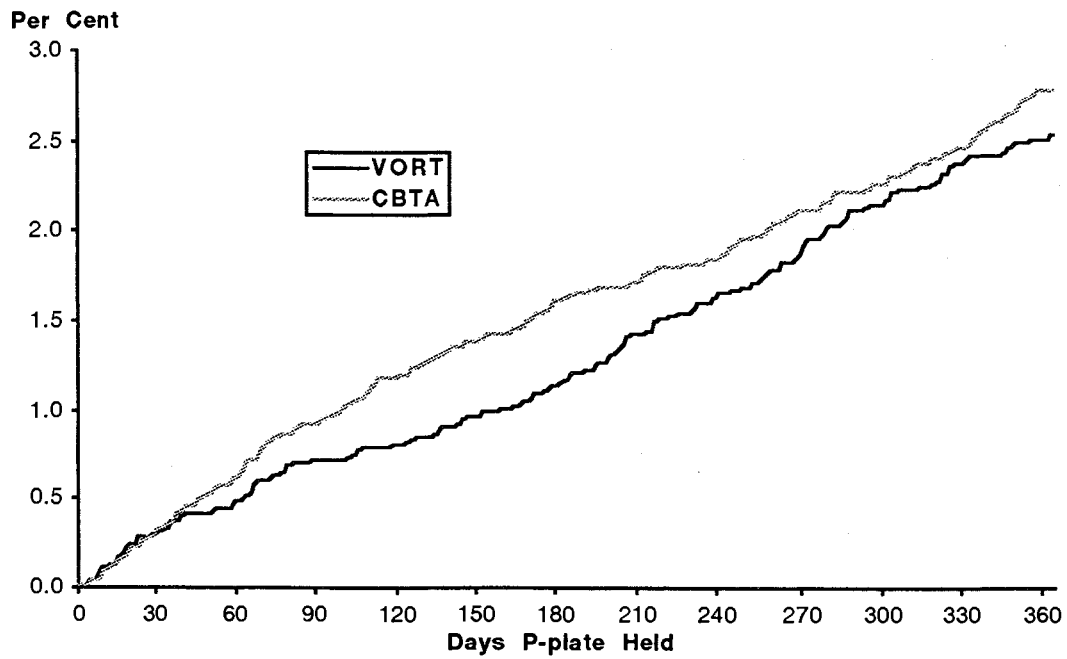


Figure 5.10
Cumulative Per Cent of 16 Year Old Female Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=10797)

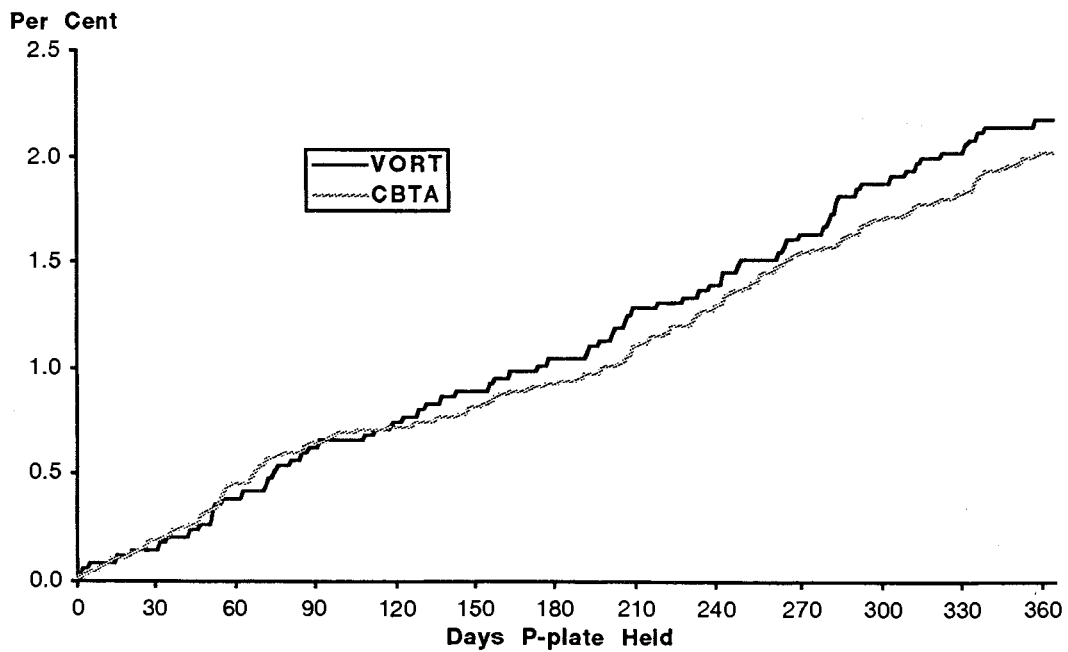


Figure 5.11
Cumulative Per Cent of 17 Year Old Male Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=5264)

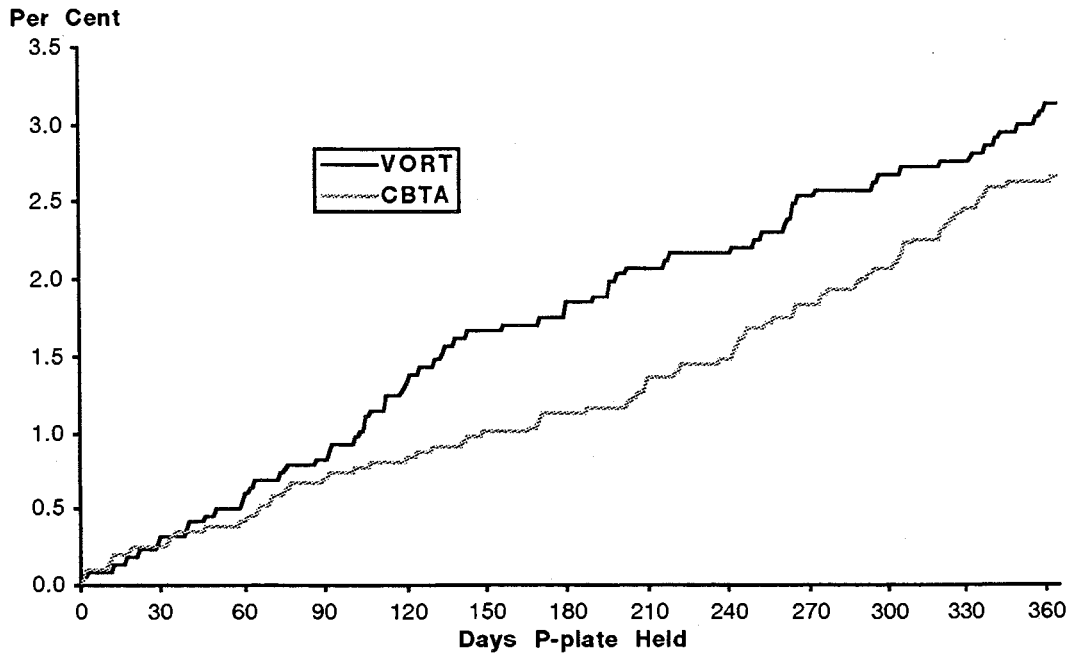


Figure 5.12
Cumulative Per Cent of 17 Year Old Female Drivers Involved in a Casualty Crash
by the Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Method of Obtaining the Licence (n=5148)

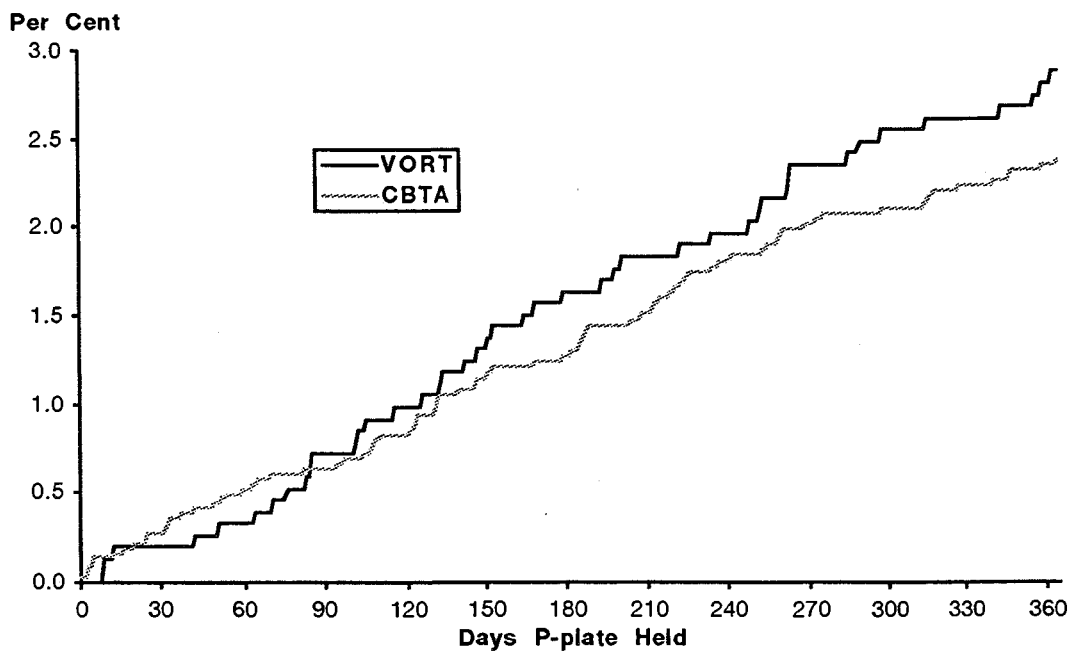


Figure 5.13
 Cumulative Per Cent of 18+ Year Old Male Drivers Involved in a Casualty Crash
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and the Method of Obtaining the Licence (n=10906)

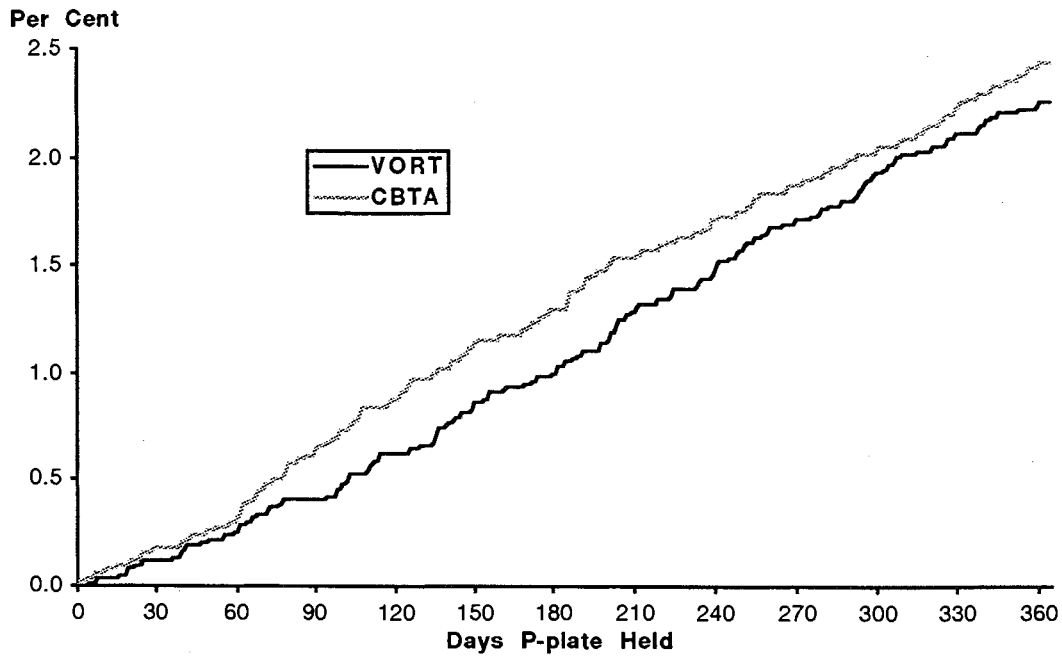
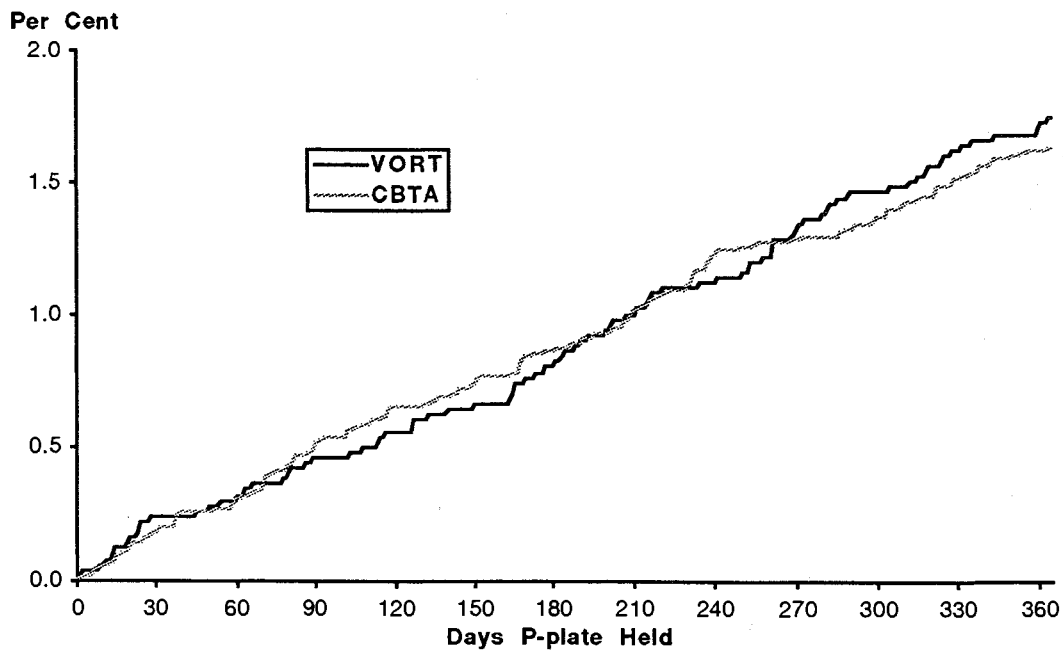


Figure 5.14
 Cumulative Per Cent of 18+ Year Old Female Drivers Involved in a Casualty Crash
 by the Number of Days after Obtaining a Provisional Licence in 1995-1997
 and the Method of Obtaining the Licence (n=14189)



5.5 Crash Experience by Socio-Economic Status of Driver and Method of Obtaining a Provisional Licence

As mentioned previously, those drivers who resided in higher socio-economic areas in metropolitan Adelaide when they obtained their Learner's Permit were more likely to have taken CBTA rather than VORT. It should also be noted that no assignment of socio-economic status was attempted for the half of the drivers who had no post code information available.

The small numbers of cases mean that the cumulative trend lines for casualty crashes shown in Figures 5.15 to 5.17 are irregular. However, there is an indication that drivers from middle socio-economic areas who took CBTA had lower casualty crash rates during the first year of driving than did the drivers from those areas who took the VORT (Figure 5.16). This result was consistent with that for all crashes. There was no consistent difference among drivers from the upper socio-economic areas (Figure 5.15) but some slight indication of a higher casualty crash rate for the VORT group in the lower status areas of metropolitan Adelaide (Figure 5.17).

Figure 5.15
Cumulative Per Cent of Adelaide Upper Class Drivers Involved in a Casualty Crash by the Given Number of Days after Obtaining a Provisional Licence in 1995-1997 and the Test Type (n=4762)

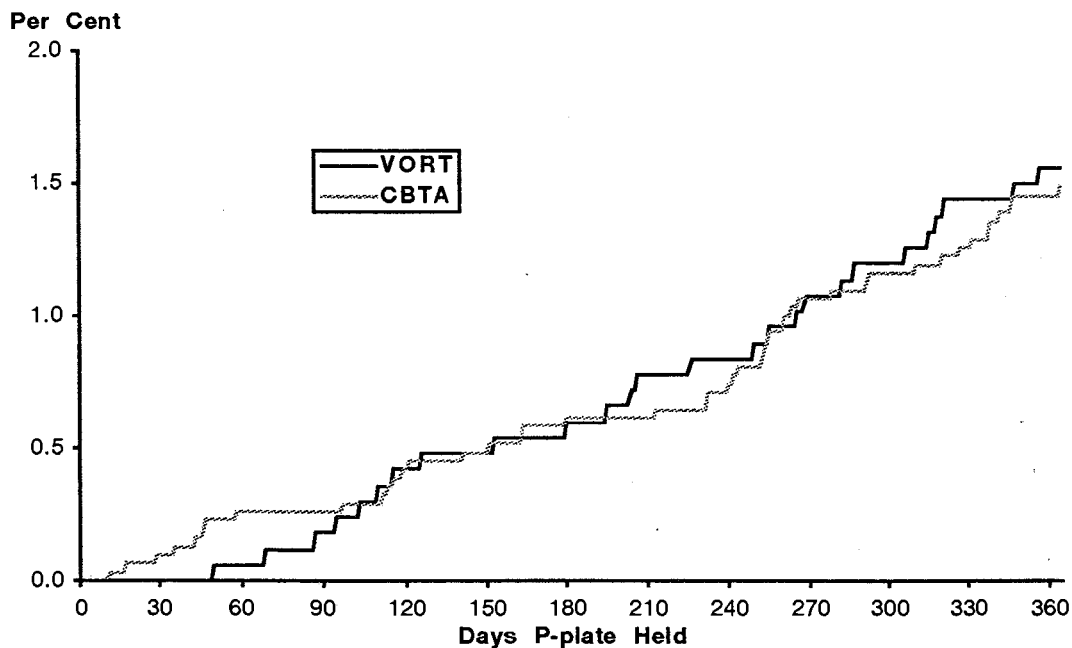


Figure 5.16
Cumulative Per Cent of Adelaide Middle Class Drivers Involved in a Casualty Crash
by the Given Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Test Type (n=2897)

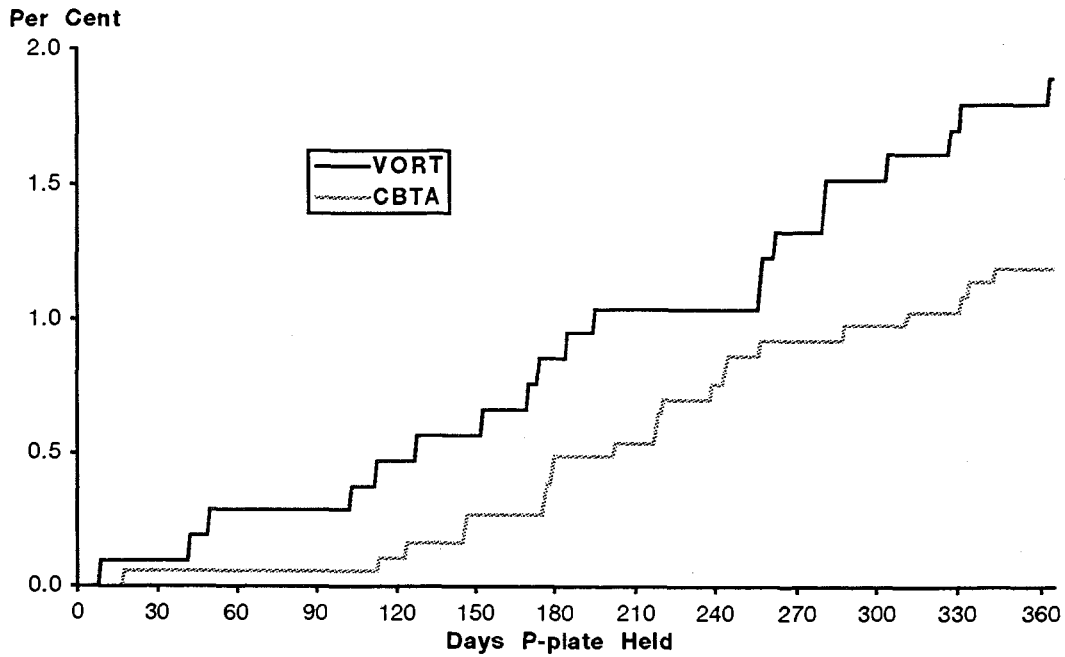
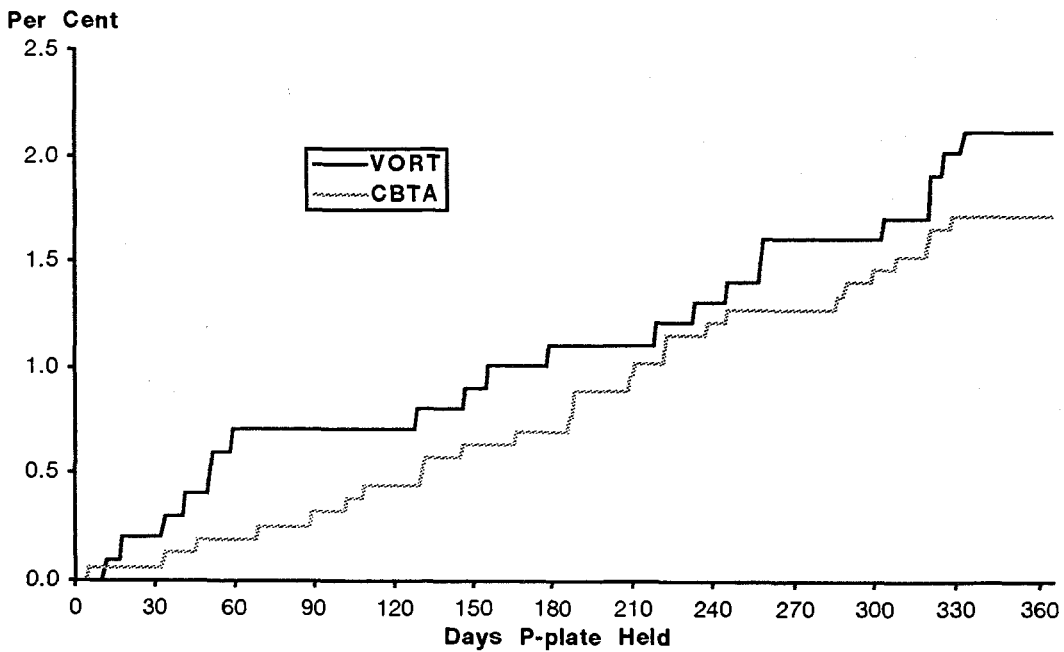


Figure 5.17
Cumulative Per Cent of Adelaide Lower Class Drivers Involved in a Casualty Crash
by the Given Number of Days after Obtaining a Provisional Licence in 1995-1997
and the Test Type (n=2561)



6. OFFENCES

6.1 Offence Rate by Method of Obtaining a Provisional Licence

This section reviews the rates at which drivers in these two groups, those who took CBTA or VORT, committed at least one traffic offence of any type during the first year of operating on a Provisional Licence. The information on traffic offences was provided by the Transport SA Customer Service Centre from the Licensing File and was available for the period 1995 to 1999, unlike the crash data on the South Australian Traffic Accident Reporting System (TARS) data base which was not available for all of 1999 when this study commenced. This made it possible to include drivers who obtained a Provisional Licence in the years 1995 to 1998, inclusive.

The offence data obtained from the Transport SA Customer Service Centre contained very few offences for drivers who obtained their Provisional Licence in 1995 (Table 6.1). However, those cases form only a small proportion of the total and so the following comparisons are based on all of the data shown in Table 6.1.

Table 6.1
Per Cent Offending During First Year After Obtaining Provisional Licence for Drivers
Obtaining Provisional Licence in 1995-1998 (n=83542)

Year P-Plate Obtained	Per Cent Offending within 1 Year of Obtaining P-Plate	
	CBT	VORT
1995	2.2	2.7
1996	9.8	14.0
1997	14.0	18.3
1998	13.0	18.4
Total	10.6	13.1

The reason for the small number of offences in the 1995 and 1996 licensing years in Table 6.1 has not been determined at the time of preparation of this report. However, when examining the number of offences per driver in the first year of driving on a Provisional Licence it appears that those with multiple offences are over-represented in the 1995 and 1996 licensing years (Tables 6.2 and 6.3). This may mean that records are retained for more than 3 years only if they are relevant to demerit points. The high number of multiple offenders may be partly a result of a driver being charged with more than one offence for a given incident.

Table 6.2
Number of Offences per Driver During First Year After Obtaining Provisional Licence
for Drivers Obtaining Provisional Licence in 1995-1998 (n=83542)

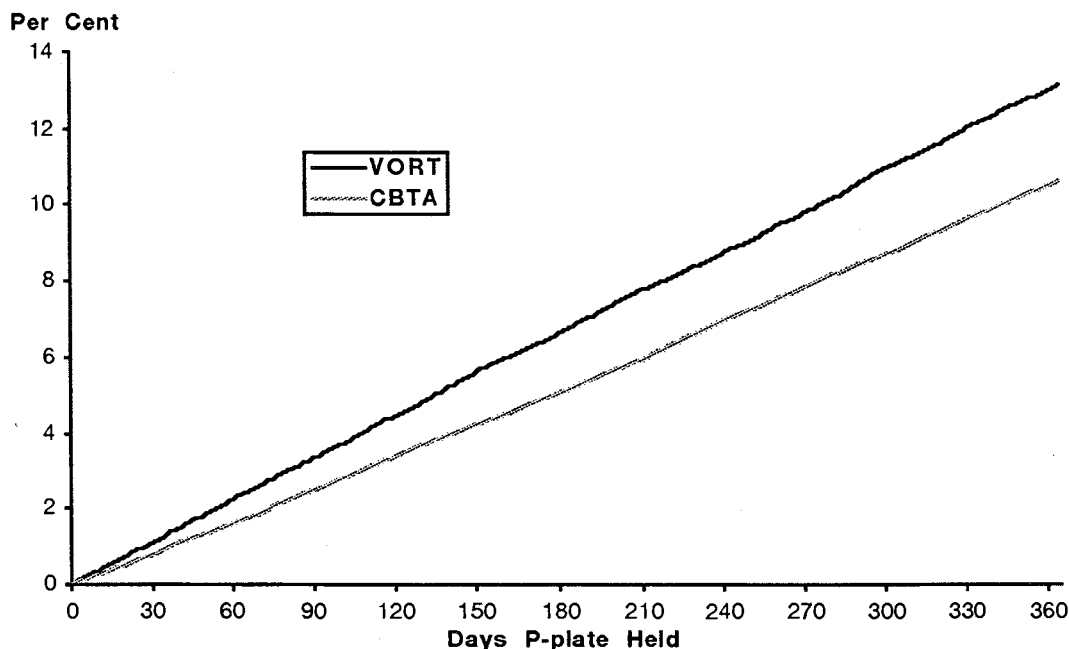
Number of Offences	CBT (N)	VORT (N)	CBT (%)	VORT (%)
0	46873	27052	89.41	86.93
1	3044	2131	5.81	6.85
2	1747	1243	3.33	3.99
3	424	346	0.81	1.11
4	177	180	0.34	0.58
5	82	80	0.16	0.26
6	41	34	0.08	0.11
7	17	19	0.03	0.06
8	13	12	0.02	0.04
9	2	8	0.00	0.03
10+	4	13	0.01	0.04
Total	52424	31118	100.00	100.00

Table 6.3
Number of Offences per Driver During First Year After Obtaining Provisional Licence for
Drivers Obtaining Provisional Licence in
1997-1998 (n=44,148 drivers)

Number of Offences	CBT (N)	VORT (N)	CBT (%)	VORT (%)
0	25646	11837	86.51	81.61
1	2189	1396	7.38	9.62
2	1248	813	4.21	5.61
3	317	226	1.07	1.56
4	134	117	0.45	0.81
5	55	54	0.19	0.37
6	31	22	0.10	0.15
7	9	13	0.03	0.09
8	11	8	0.04	0.06
9	0	7	0.00	0.05
10+	4	11	0.01	0.08
Total	29644	14504	100.00	100.00

Figure 6.1 shows the rate at which the two groups of drivers (CBTA and VORT) committed at least one traffic offence in their first year of driving on a Provisional Licence. While the group of drivers who qualified for a Provisional Licence by CBTA had a consistently lower first offence rate than the group who did so by the VORT, it is not clear to what extent this is due to any characteristics of the two licensing procedures and/or to any differences between the two groups of drivers who self selected their licensing method.

Figure 6.1
Cumulative Per Cent of Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=83542)



6.2 Offence Rate by Sex of Driver and Method of Obtaining a Provisional Licence

Both males and females show less difference in offence rates between the CBTA and VORT groups than was apparent for males and females combined. Male drivers who took the VORT did have a higher offence rate than those who took CBTA (Figure 6.2) but there was no difference at all between these two groups among the female drivers overall (Figure 6.3) (but see Section 6.4 for the effect of age). The reasons why a larger difference appears between the CBTA and VORT groups when the male and female drivers offence rates are combined are to be found in the fact that female drivers have lower offence rates than males and they are more likely to have taken CBTA than VORT.

Figure 6.2
Cumulative Per Cent of Male Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=41154)

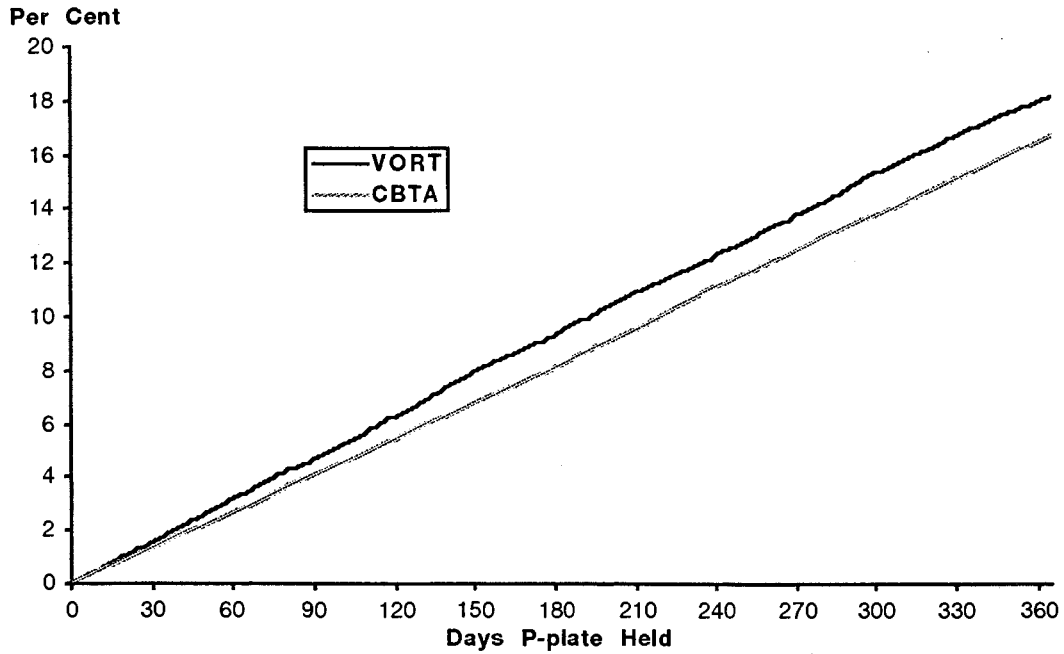
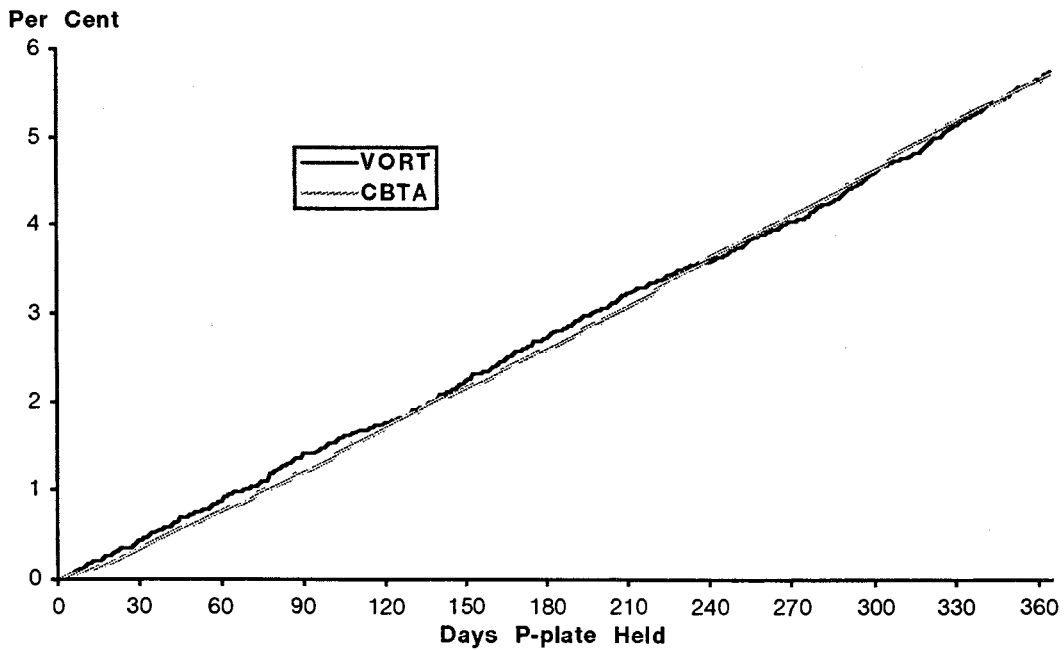


Figure 6.3
Cumulative Per Cent of Female Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=41352)



6.3 Offence Rate by Age of Driver and Method of Obtaining a Provisional Licence

In each of the age groups presented in Figures 6.4 to 6.8, drivers who had taken CBTA had lower offence rates than drivers who had taken the VORT. Further, the older the group of drivers, the more difference was apparent. However, given the large difference in offence rates between males and females and the greater proportion of females getting their licence via CBTA and when they are older, these results are probably largely sex related artefacts. For an examination of this see the next section where the age and sex of the drivers are both analysed.

Figure 6.4
Cumulative Per Cent of 16 Year Old Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=34810)

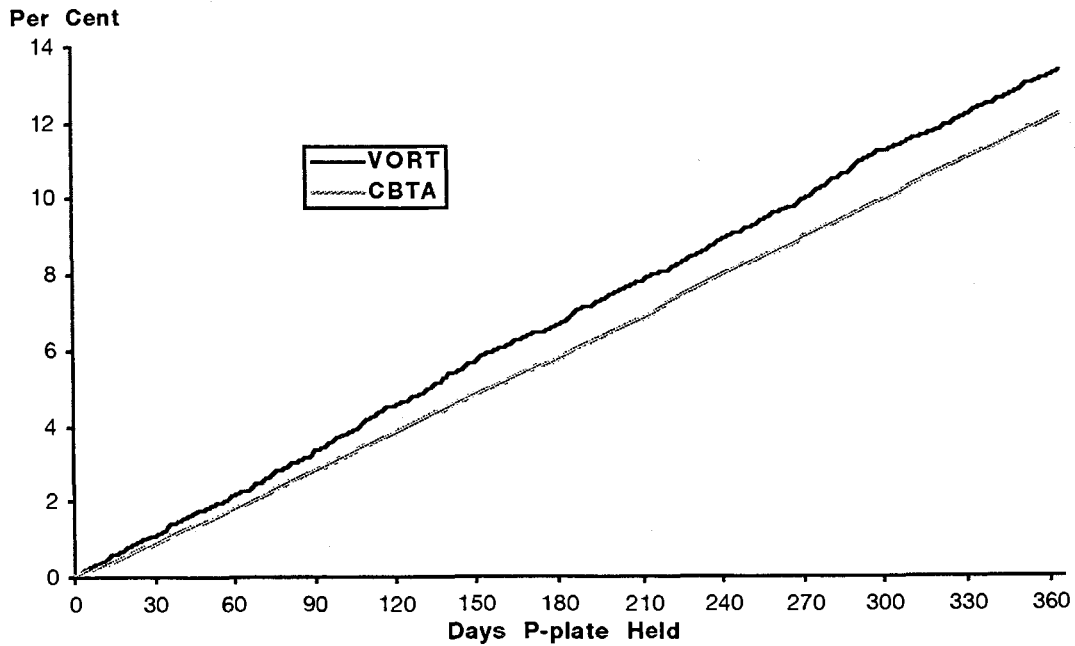


Figure 6.5
Cumulative Per Cent of 17 Year Old Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=14600)

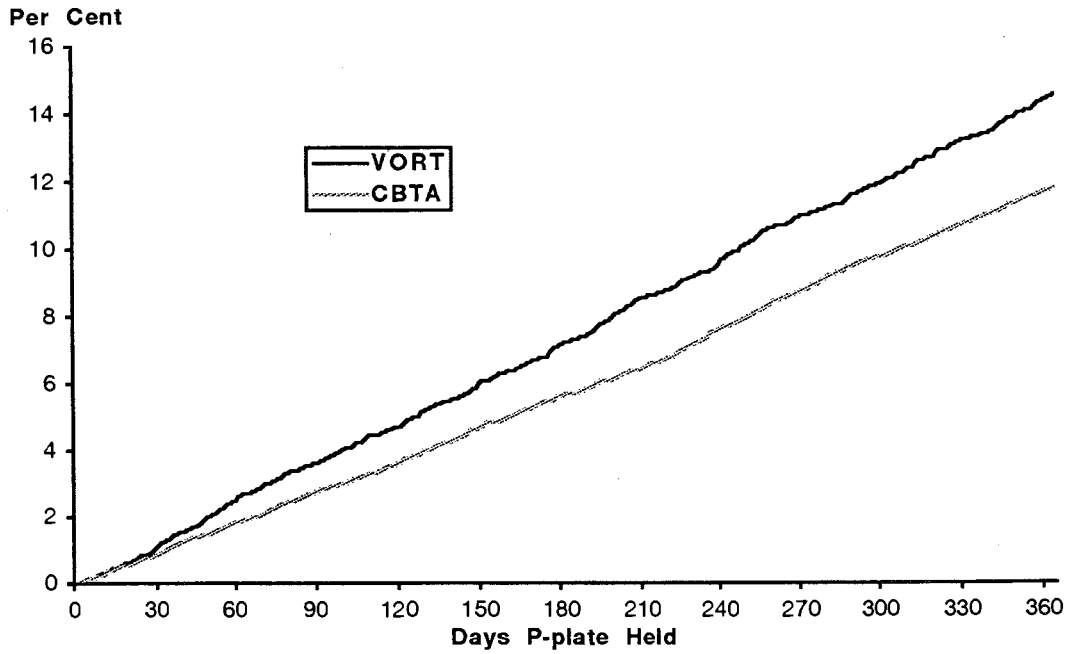


Figure 6.6
Cumulative Per Cent of 18 Year Old Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=7574)

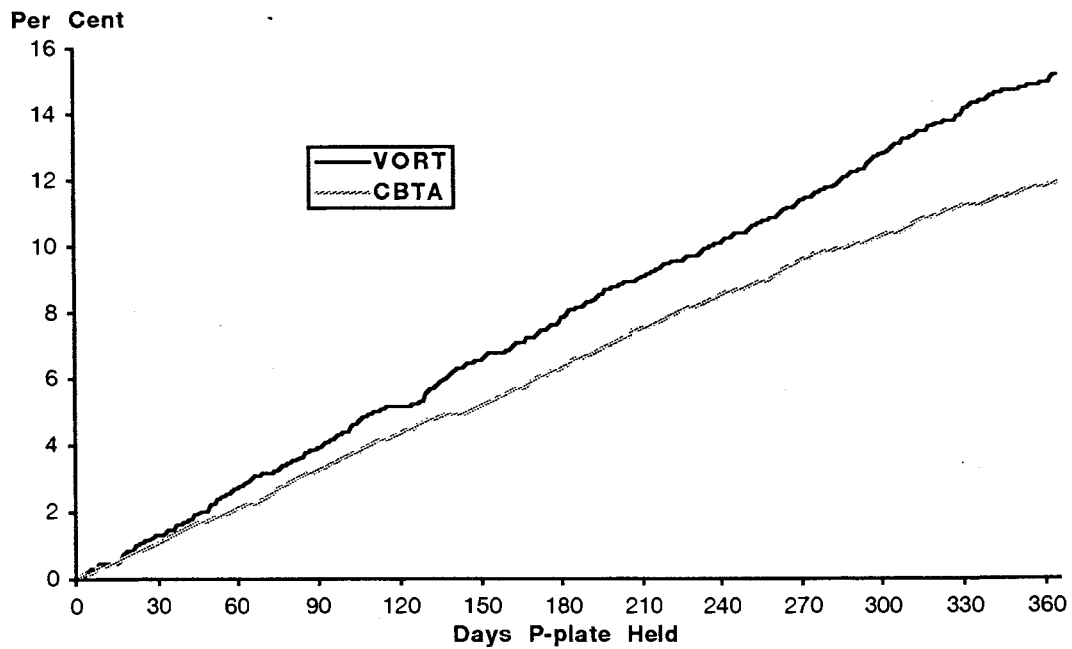


Figure 6.7
Cumulative Per Cent of 19 Year Old Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=4387)

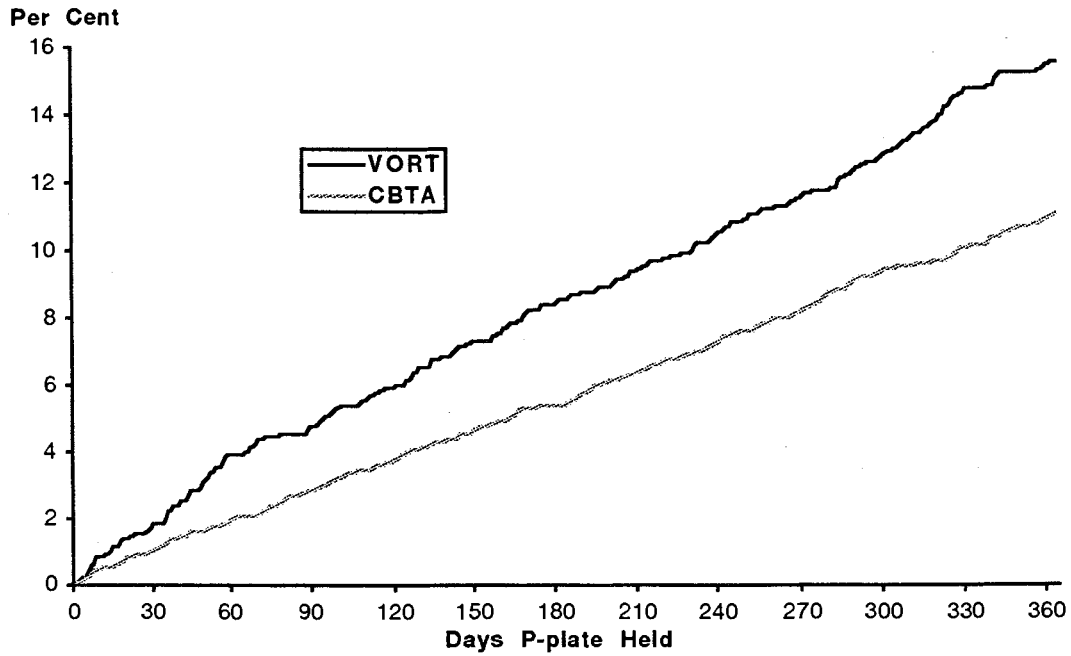
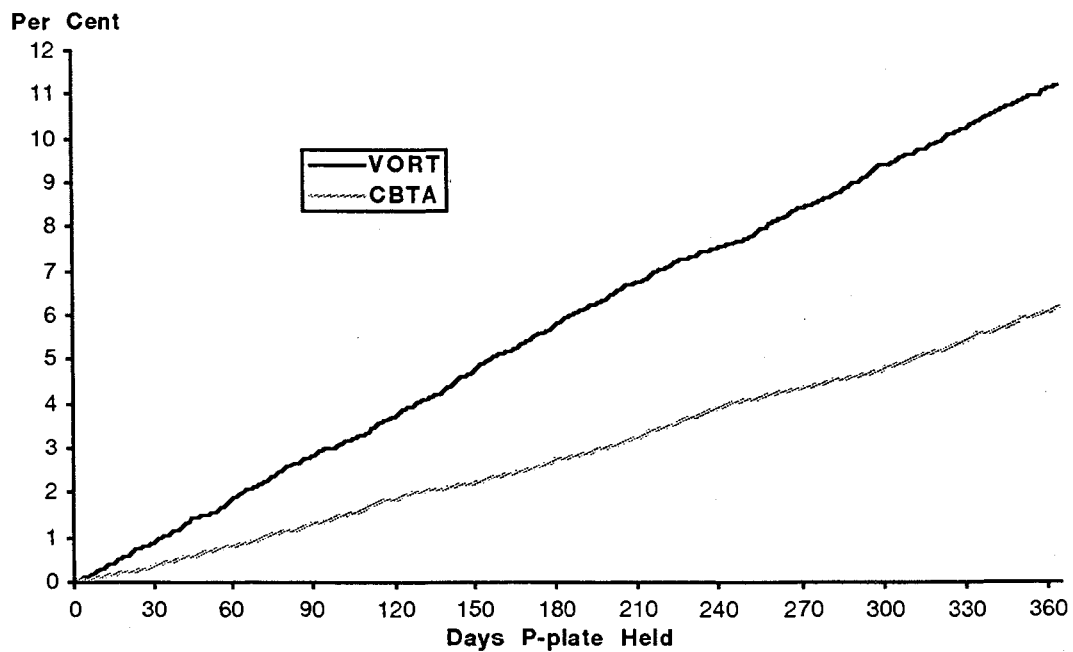


Figure 6.8
Cumulative Per Cent of 20+ Year Old Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=22038)



6.4 Offence Rate by Age and Sex of Driver and Method of Obtaining a Provisional Licence

By examining both the sex of the drivers and their age at the time of obtaining a Provisional Licence, confounding of offence rates by age and sex differences in the CBTA and VORT groups is removed. Figures 6.9 to 6.18 show the offence rates during the first year for males and females in different age groups.

Male drivers who had taken CBTA showed consistently lower offence rates than their VORT counterparts within all age groups although for the 16 and 18 year old groups these differences were marginal.

The results for females were much less clear with the only meaningful differences being: 16 year old VORT females had lower offence rates than 16 year old CBTA females; and 20+ year old VORT females had higher offence rates than 20+ year old CBTA females.

The interpretation of the results is also complicated by the fact that the trends observed may also be due to differences other than sex and age between the type of people choosing the VORT or CBTA method of obtaining a licence. However, going by available information it appears that, at least for males, CBTA may play a role in reducing traffic offences.

Figure 6.9
 Cumulative Per Cent of 16 Year Old Male Drivers Cited for an Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 in 1995-1998 and the Test Type (n=19446)

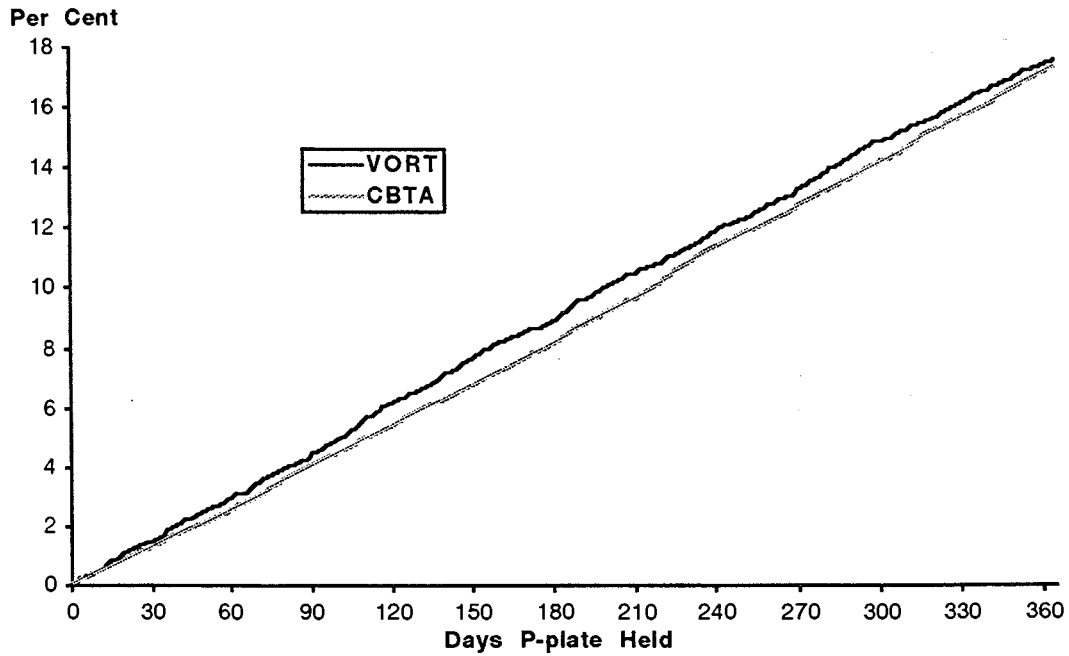


Figure 6.10
 Cumulative Per Cent of 16 Year Old Female Drivers Cited for an Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 in 1995-1998 and the Test Type (n=15086)

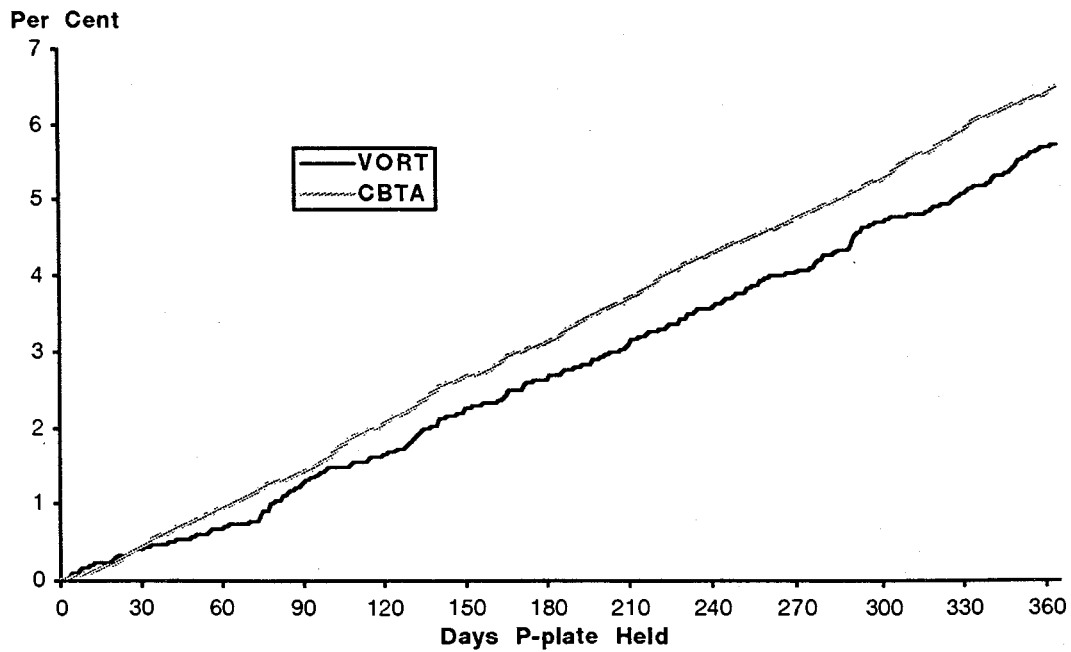


Figure 6.11
Cumulative Per Cent of 17 Year Old Male Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=7289)

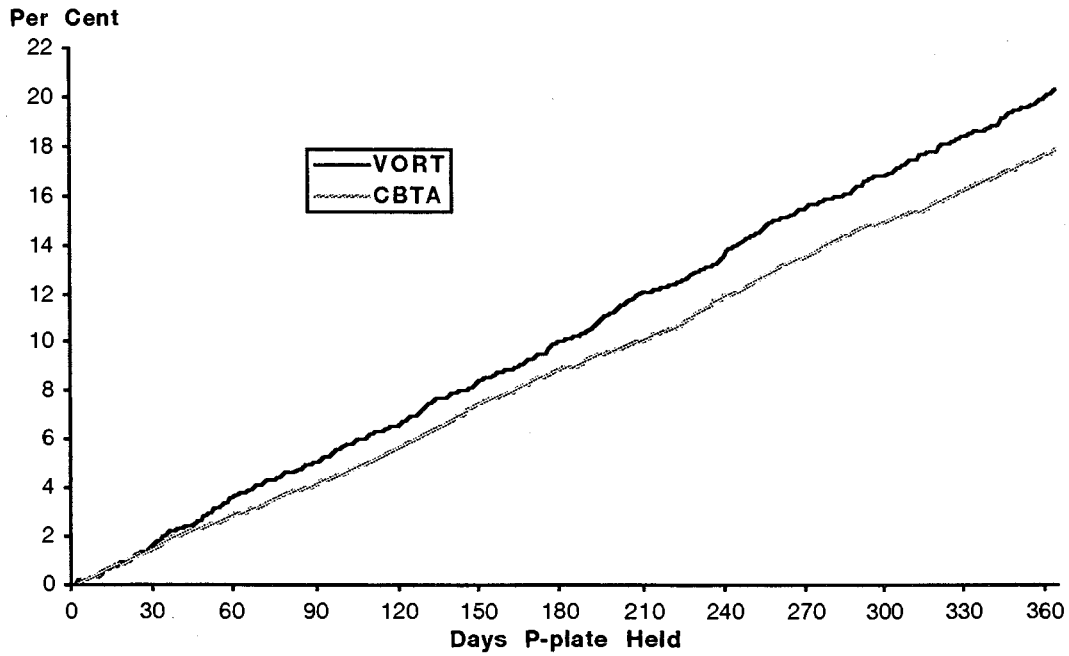


Figure 6.12
Cumulative Per Cent of 17 Year Old Female Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=7199)

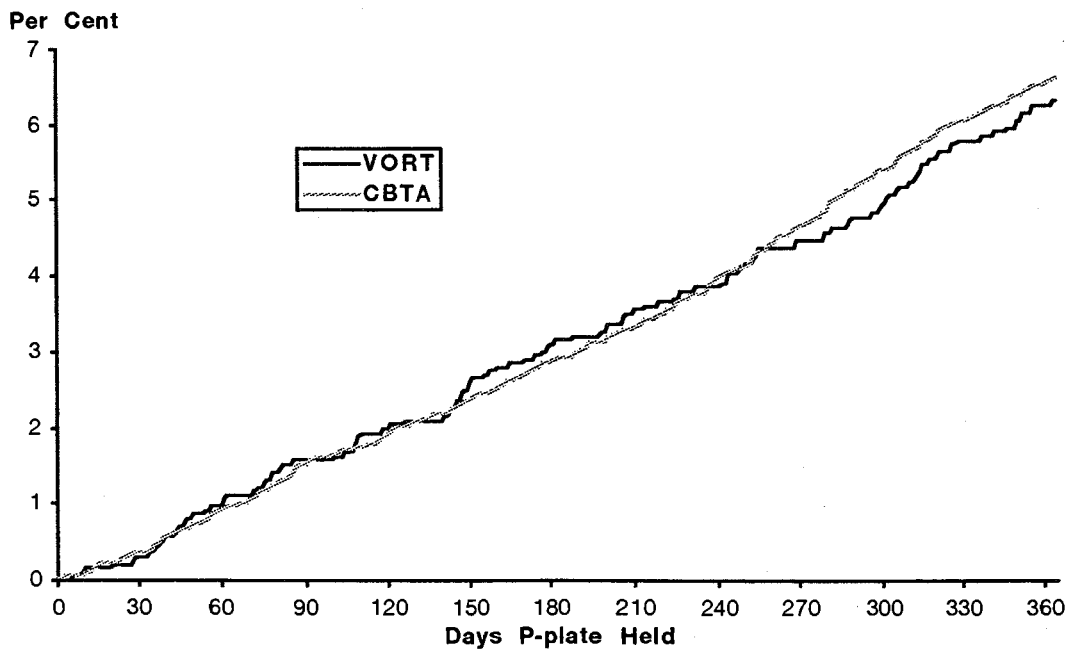


Figure 6.13
Cumulative Per Cent of 18 Year Old Male Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=3602)

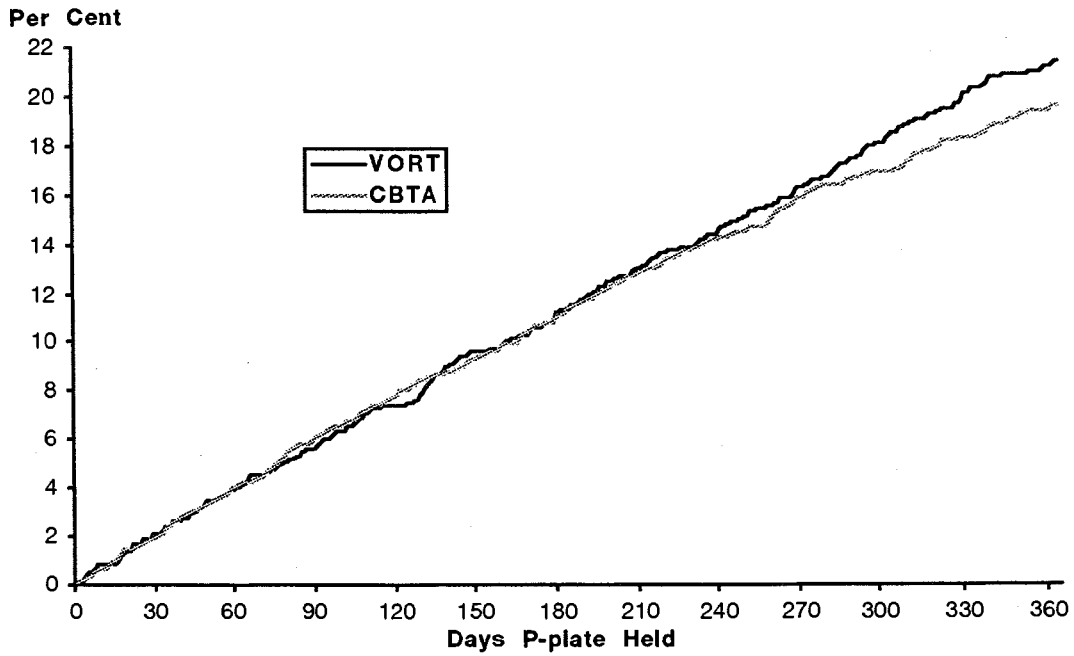


Figure 6.14
Cumulative Per Cent of 18 Year Old Female Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=3914)

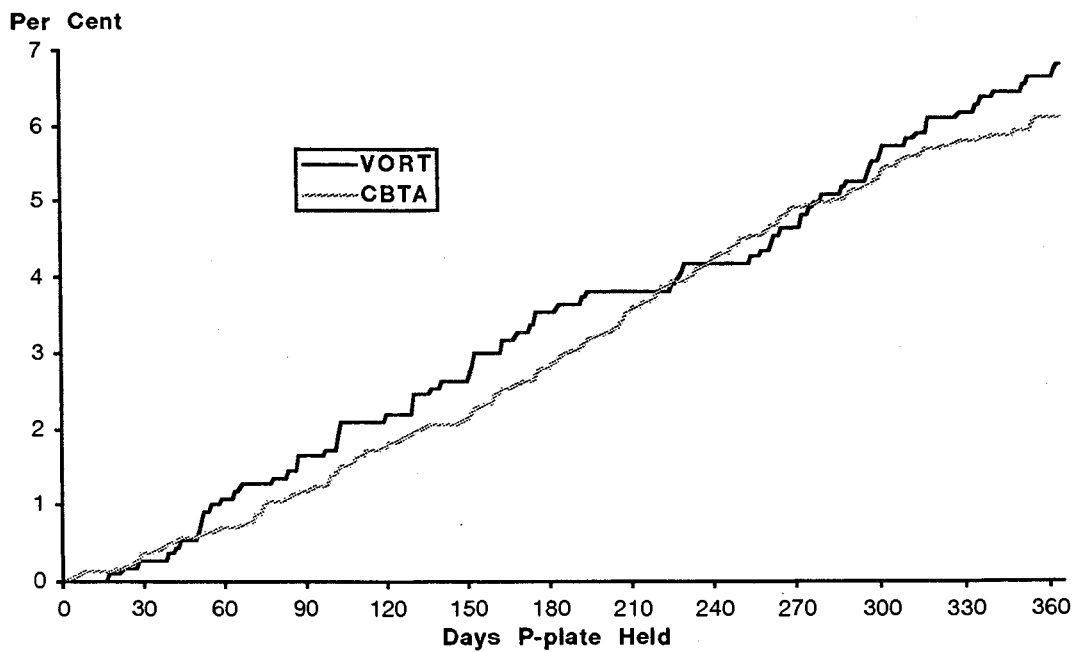


Figure 6.15
Cumulative Per Cent of 19 Year Old Male Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=1956)

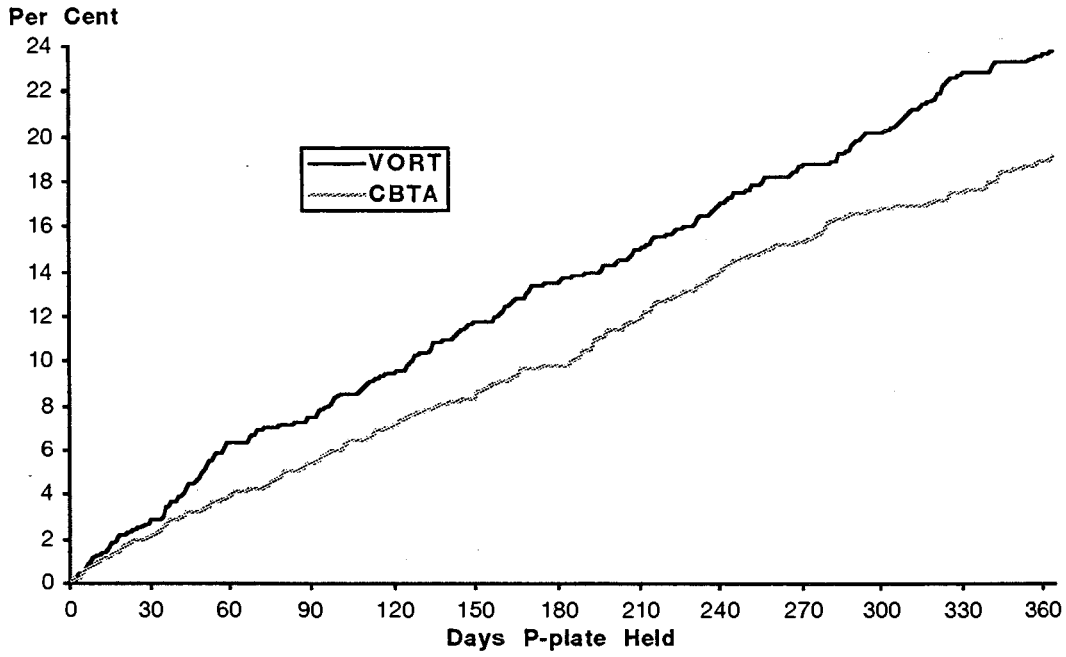


Figure 6.16
Cumulative Per Cent of 19 Year Old Female Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=2387)

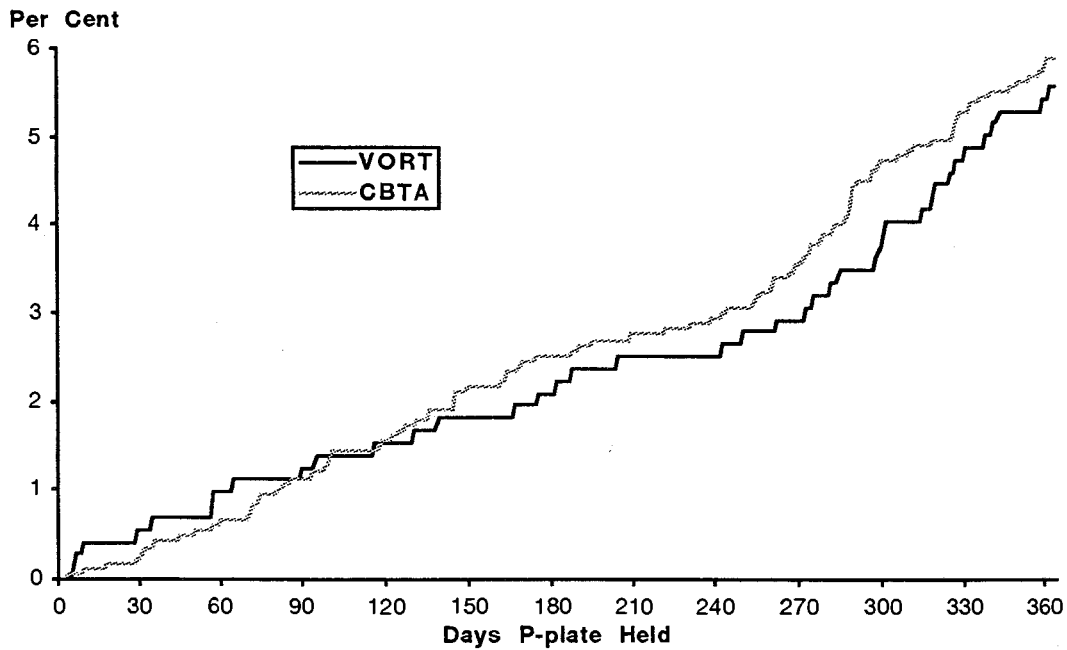


Figure 6.17
 Cumulative Per Cent of 20+ Year Old Male Drivers Cited for an Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 in 1995-1998 and the Test Type (n=8861)

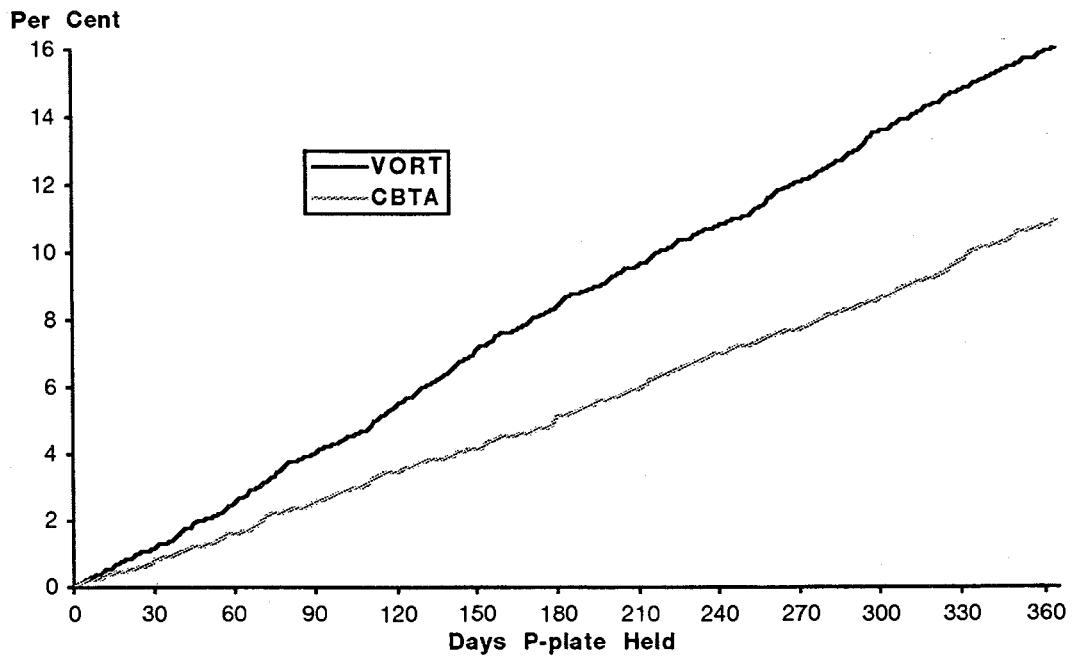
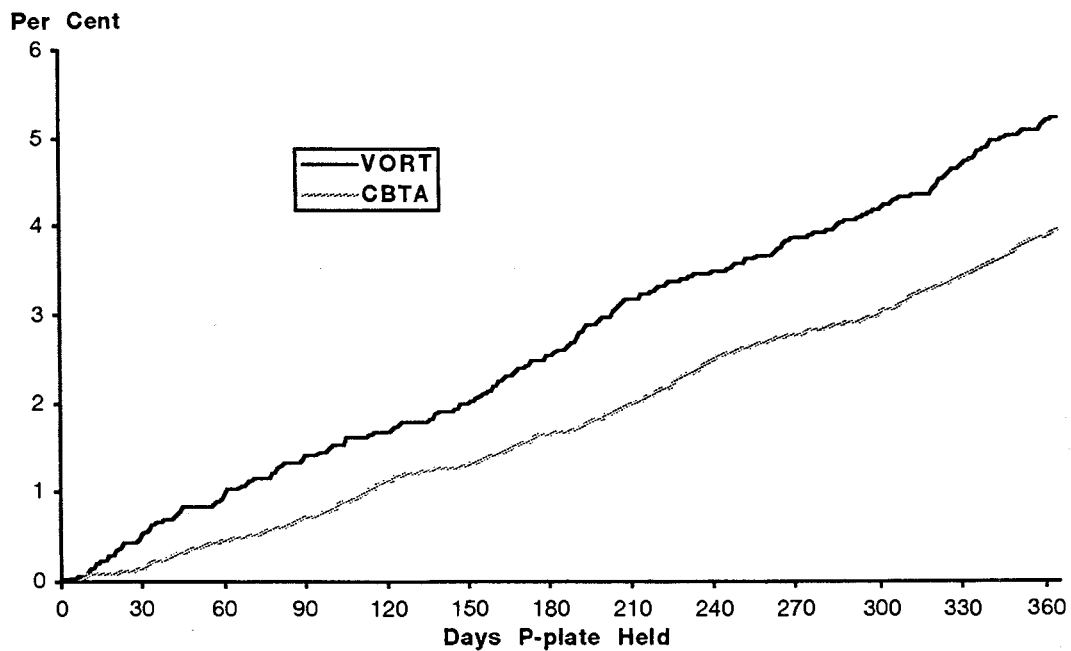


Figure 6.18
 Cumulative Per Cent of 20+ Year Old Female Drivers Cited for an Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 in 1995-1998 and the Test Type (n=12766)



6.5 Offence Rate by Socio-Economic Status of Driver and Method of Obtaining a Provisional Licence

The reader is reminded that no assignment of socio-economic status was attempted for the half of the drivers who had no post code information available. The comparisons by socio-economic status shown in the following Figures are also restricted to the Adelaide metropolitan area.

In Figures 6.19 to 6.21 it can be seen that the rate of offending is strongly inversely related to socio-economic status, with the lower status group having a rate that is approximately 50 per cent higher than for the upper status group.

Within each socio-economic status group, drivers who took the VORT had a rate of first offences that was about 40 per cent greater than the rate for drivers who took CBTA and as seen in the Sections above this is probably mostly due to sex differences in those who chose CBTA rather than the VORT. The small numbers of drivers with available socio-economic status preclude a meaningful sex and age breakdown.

Figure 6.19
Cumulative Per Cent of Adelaide Upper Class Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=8791)

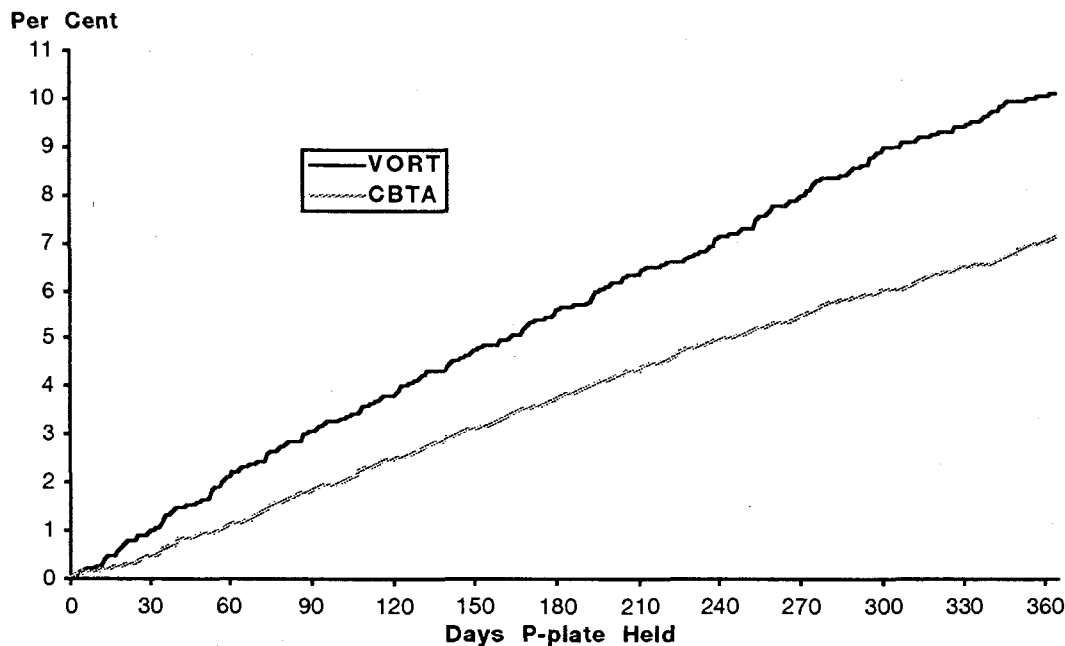


Figure 6.20
Cumulative Per Cent of Adelaide Middle Class Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=5262)

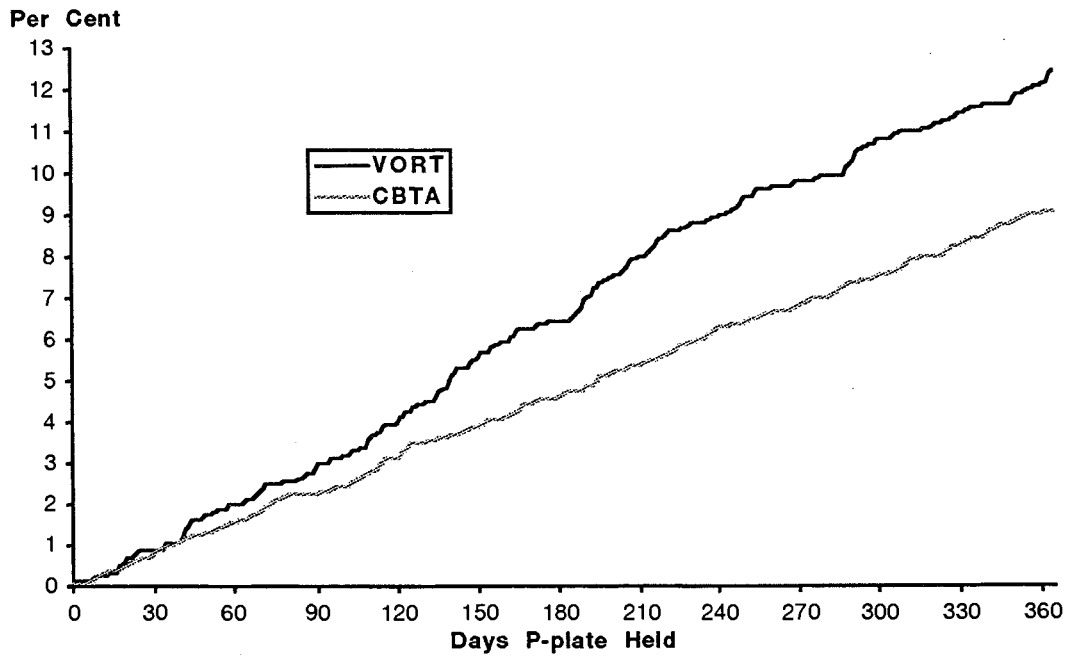
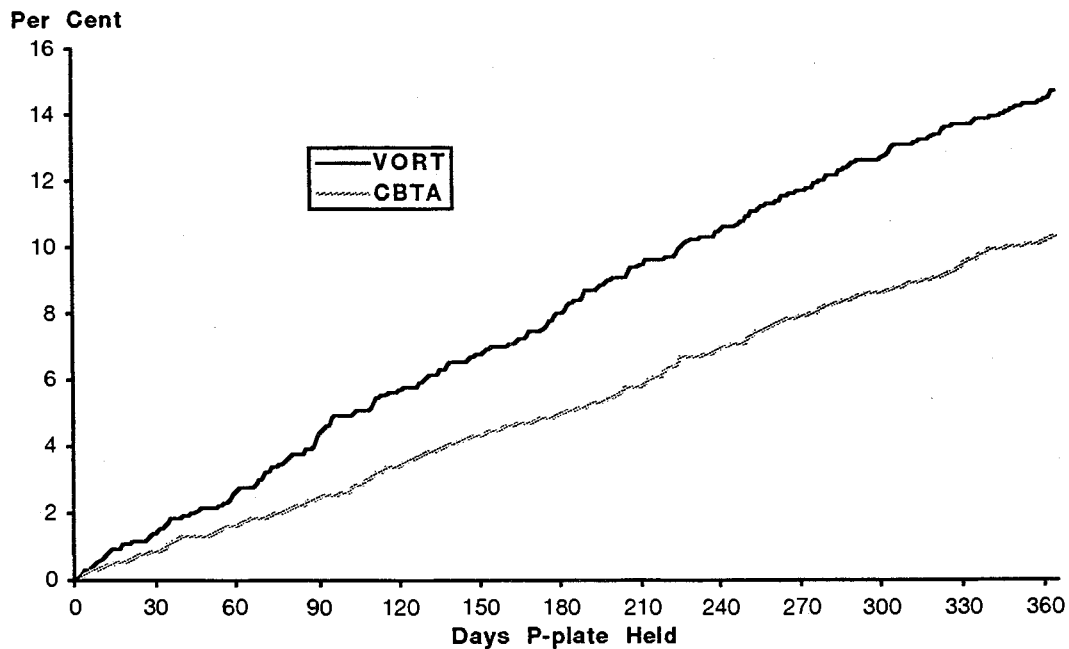


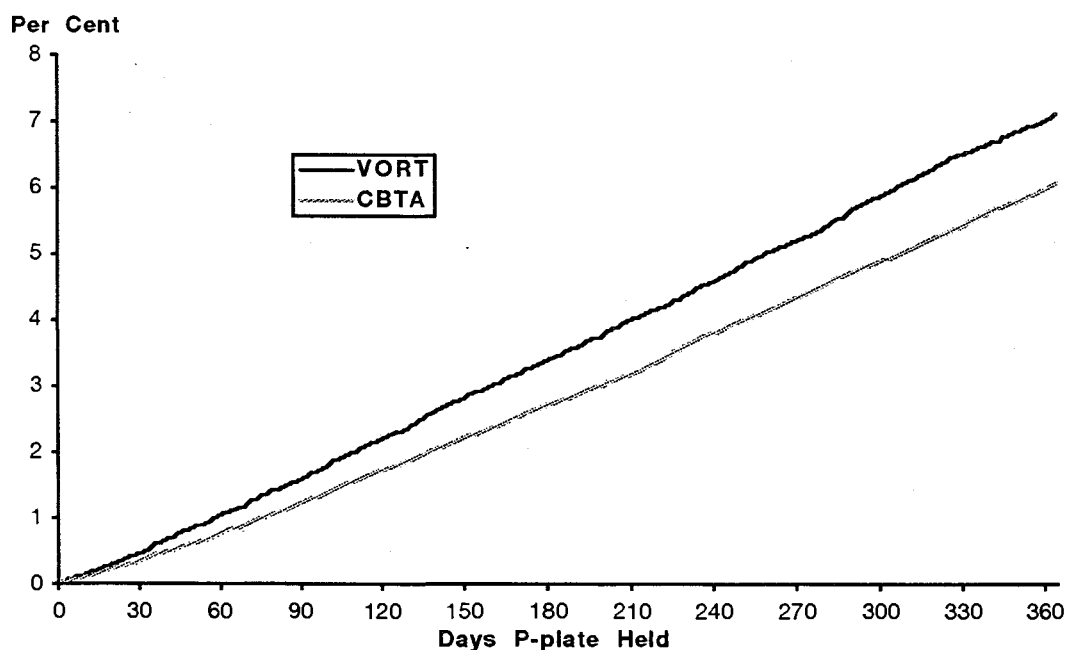
Figure 6.21
Cumulative Per Cent of Adelaide Lower Class Drivers Cited for an Offence
by the Given Number of Days after Obtaining a Provisional Licence
in 1995-1998 and the Test Type (n=4694)



6.6 Speeding Offence Rate by Method of Obtaining a Provisional Licence

The cumulative rate at which first speeding offences were recorded in their first year on a Provisional Licence is shown in Figure 6.22 for those drivers who took CBTA and those who took the VORT. Speeding offences accounted for just over half of all first offences for both groups of drivers, with the group who took the VORT having a higher rate of speeding offences than the CBTA group. As for all offences, it is not clear to what extent this is due to any characteristics of the two licensing procedures and/or to any differences between the two groups of drivers who self selected their licensing method.

Figure 6.22
Cumulative Per Cent of Drivers Cited for a Speeding Offence
by the Given Number of Days after Obtaining a Provisional Licence
and the Test Type (n=83542)



6.7 Speeding Offence Rate by Sex of Driver and Method of Obtaining a Provisional Licence

Both males and females showed virtually no difference in speeding offence rates between those who had taken CBTA and those who had taken the VORT (Figures 6.23 and 6.24). The reasons why a large difference appears between the CBTA and VORT groups when the male and female drivers offence rates are combined are to be found in the fact that female drivers have lower offence rates than males and they are more likely to have taken CBTA than VORT.

Figure 6.23
 Cumulative Per Cent of Male Drivers Cited for a Speeding Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 and the Test Type (n=41154)

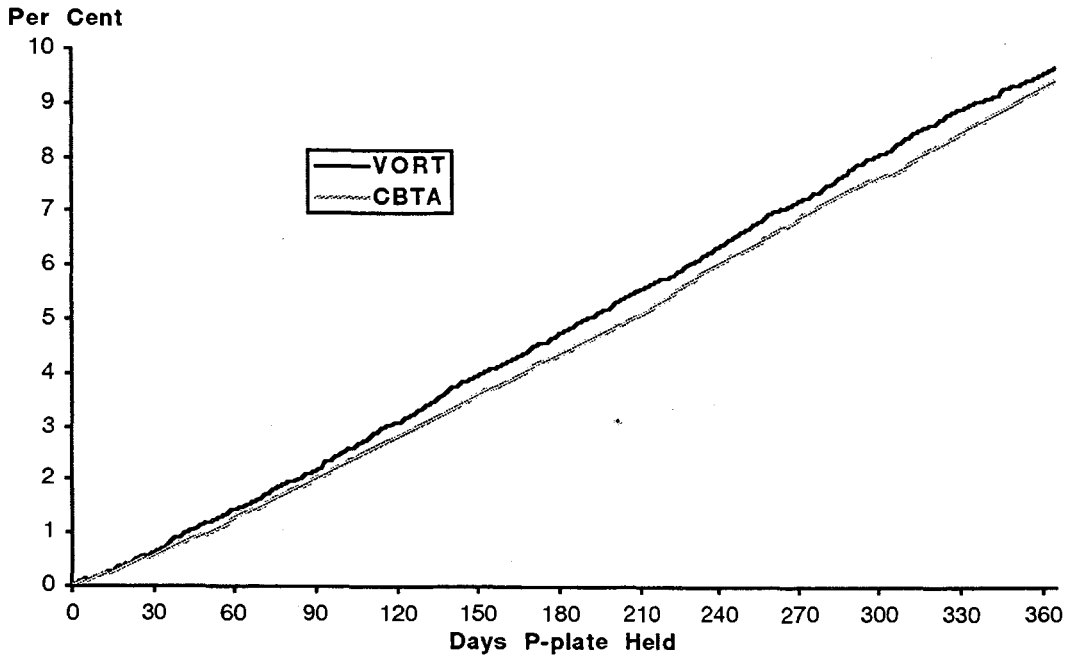
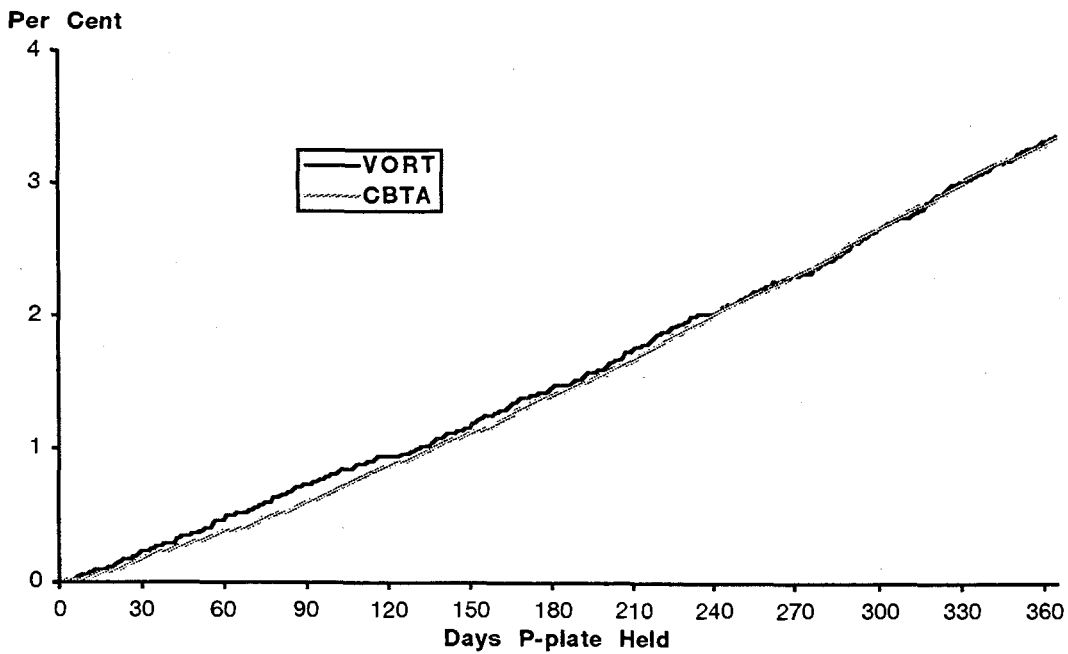


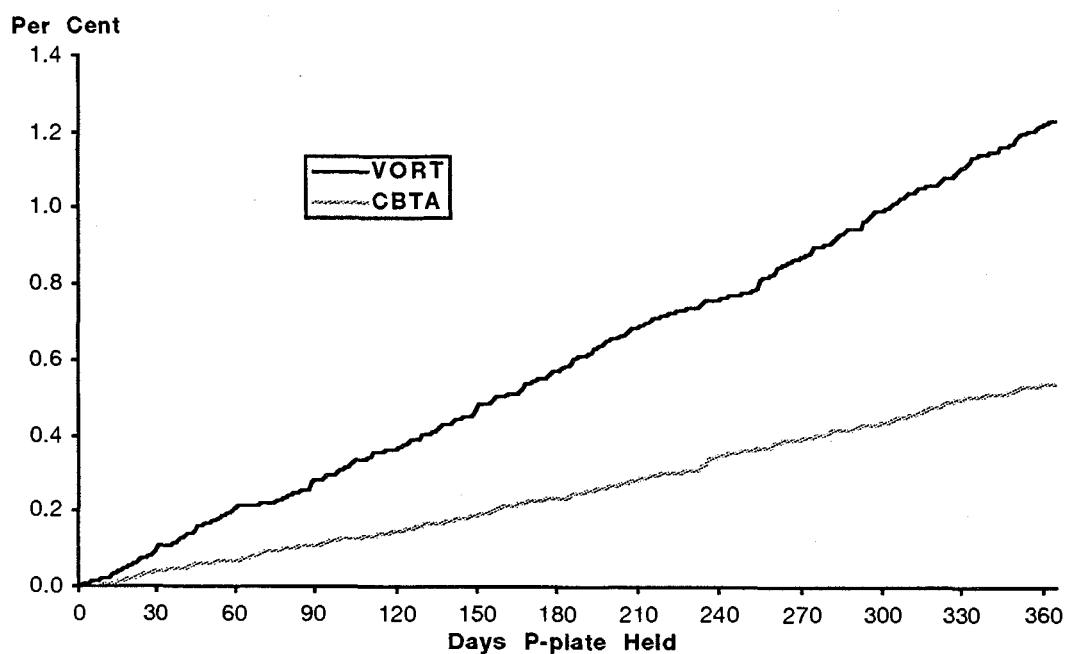
Figure 6.24
 Cumulative Per Cent of Female Drivers Cited for a Speeding Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 and the Test Type (n=41352)



6.8 Alcohol Offence Rate by Method of Obtaining a Provisional Licence

Fewer than 2 per cent of the drivers in this sample had an alcohol offence in their first year of operating on a Provisional Licence. This means that comparisons of the rate of alcohol offences between the CBTA and VORT groups are based on small numbers of cases. However, there were very large differences observed between these two groups, as can be seen in Figure 6.25. Those drivers who took the VORT had about twice the rate of alcohol offences than those who took CBTA.

Figure 6.25
Cumulative Per Cent of Drivers Cited for an Alcohol Offence
by the Given Number of Days after Obtaining a Provisional Licence
and the Test Type (n=83542)



6.9 Alcohol Offence Rate by Sex of Driver and Method of Obtaining a Provisional Licence

Unlike speeding offences, both males and females continued to show a meaningful difference in alcohol offence rates between those who had taken CBTA and those who had taken the VORT (Figures 6.26 and 6.27). This strongly suggests that either CBTA is a strong deterrent to drink driving and/or more likely that other factors associated with choosing VORT are also associated with higher levels of drinking and driving (lower socio-economic status for example).

Figure 6.26
 Cumulative Per Cent of Male Drivers Cited for an Alcohol Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 and the Test Type (n=41154)

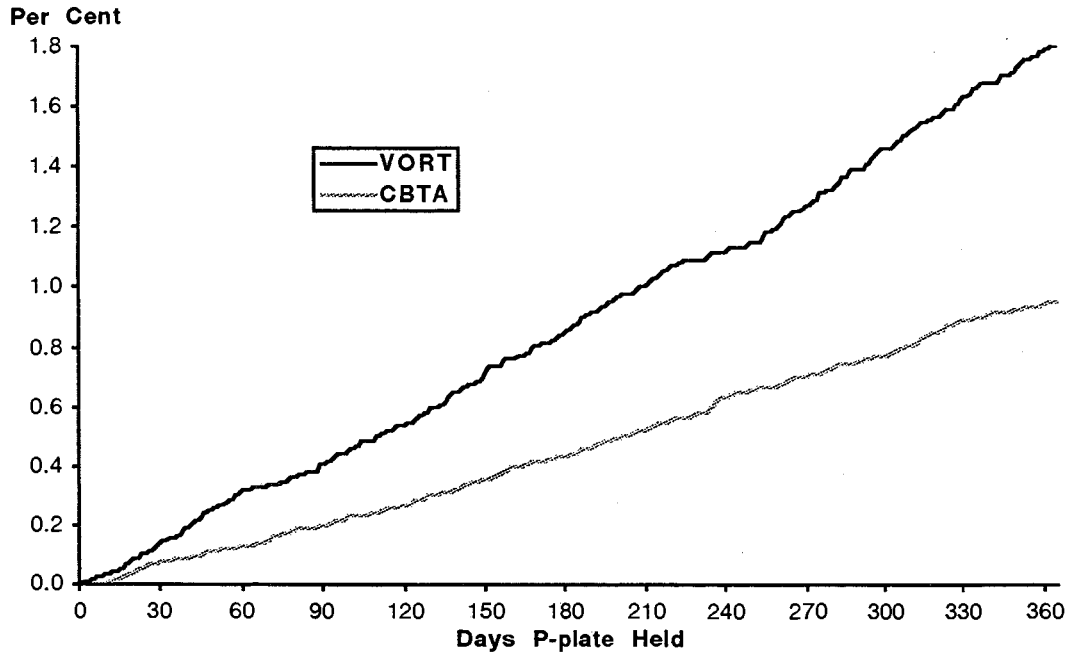
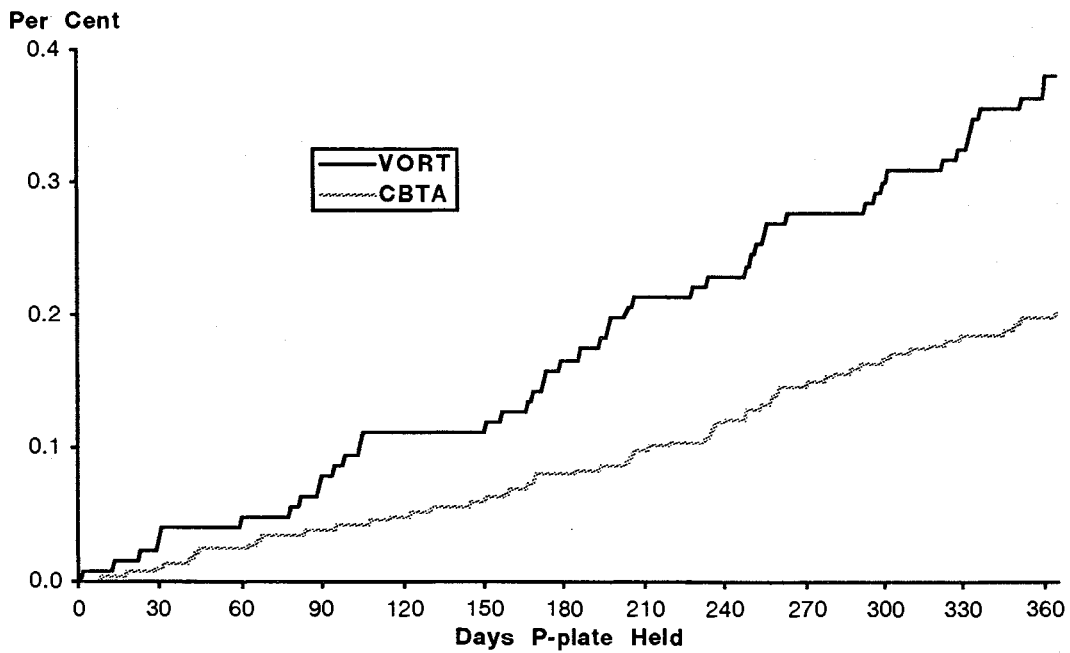


Figure 6.27
 Cumulative Per Cent of Female Drivers Cited for an Alcohol Offence
 by the Given Number of Days after Obtaining a Provisional Licence
 and the Test Type (n=41352)



7. DISCUSSION AND CONCLUSIONS

7.1 Characteristics of Drivers by Method of Obtaining a Provisional Licence

Competency based Training and Assessment (CBTA) became increasingly popular as a method of obtaining a Provisional Driver's Licence in South Australia from 1995 to 1998. Females were more likely to choose CBTA than were males, but they were less likely to obtain that Licence when they were 16 years of age. VORT drivers tended to spend less time on a Learner's Permit before obtaining their first Provisional Licence compared to CBTA drivers. However, six months after obtaining their first learners permit, half of both the CBTA and VORT groups had obtained their first Provisional Licence and the pattern for both groups was very similar after that. In the Adelaide metropolitan area, drivers from higher socio-economic status areas were more likely to choose CBTA than were drivers from low socio-economic status areas. However, we were not able to classify more than half of the drivers because post code data for place of residence was not fully available.

7.2 Relationship Between the Rate of Involvement in a Crash of Any Severity and the Method of Obtaining a Provisional Licence

Overall, there was no meaningful difference in crash involvement in the first year of driving between drivers who obtained a Provisional Licence by Competency Based Training and Assessment (CBTA) and those who took the Vehicle On Road Test (VORT).

A small difference was apparent among male drivers where those who obtained a Provisional Licence by means of CBTA had a higher rate of crashes than those who chose to take the VORT. This difference became inconsistent after age was also taken into account suggesting that there is little difference between the crash experience of CBTA and VORT drivers.

A large difference in crash rates between the CBTA and the VORT drivers was observed among those who resided in a middle socio-economic class area in metropolitan Adelaide when they first obtained a Learner's Permit; those who took CBTA had lower crash rates. A similar relationship, but somewhat less marked, was observed for drivers from upper socio-economic status areas in metropolitan Adelaide. There was no difference in the crash rates for these two groups in lower socio-economic class areas in the first six months of driving on a Provisional Licence but CBTA drivers had slightly lower rates in the remainder of the first year. However, it needs to be noted that we were not able to classify more than half of the drivers because post code data for place of residence was not available and the small numbers precluded a sex and age breakdown that may have eliminated the observed effects.

7.3 Relationship Between the Rate of Involvement in a Casualty Crash and the Method of Obtaining a Provisional Licence.

There was no apparent difference between the casualty crash rates of CBTA and VORT drivers as a whole and no differences appeared when examining males and females separately. After age was also taken into account some differences emerged but they were inconsistent and probably just random variations due to small numbers.

The casualty crash rates categorised by socio-economic status again indicated that middle class CBTA drivers had a much lower rate than the corresponding VORT group but we could classify less than half of the drivers in this way and the numbers of cases were small so this result relating to economic status is imprecise.

7.4 Offence Rate by Method of Obtaining a Provisional Licence

Overall, drivers who qualified for a Provisional Licence by CBTA had fewer first offences than those who did so by the VORT. On further examination it was found that most of this difference was due to an artefact based on sex biases about choice of licensing method and offence rates.

After accounting for both sex and age effects, it appears that, at least for males, CBTA may play a role in reducing traffic offences.

Socio-economic status was examined and it was found that, overall, higher status Adelaide drivers offended less than lower status Adelaide drivers. Within each socio-economic status group, drivers who took the VORT had a rate of first offences that was about 40 per cent greater than the rate for drivers who took CBTA. This is probably mostly due to sex differences in those who chose CBTA rather than the VORT. The small numbers of drivers with available socio-economic status precluded a meaningful sex and age breakdown.

Speeding offences alone were examined and after taking sex of driver into account, no meaningful difference was apparent between the CBTA and VORT groups. However, when alcohol offences alone were examined, both males and females continued to show a meaningful difference in offence rates between those who had taken CBTA and those who had taken the VORT. This strongly suggests that either CBTA is a strong deterrent to drink driving and/or more likely that other factors associated with choosing VORT are also associated with higher levels of drinking and driving.

7.5 Comparison With Other Research

A process level evaluation of CBTA and VORT conducted for AUSTRROADS (1999), reported that drivers who took CBTA spent less time on a Learner's Permit. That was not the case in this study, although overall they did tend to be younger, as in the AUSTRROADS evaluation. The female drivers in this study were more likely to have taken CBTA than the males.

The AUSTRROADS report noted that CBTA drivers spent less time in supervised driving while on their Learner's Permit and hence had less driving experience than the VORT group. That report included a recommendation that the minimum period on a Learner's Permit be six months. However, there was no apparent difference in crash rates between those drivers who had less than six months on a Learner's Permit and those who had a longer period.

The general conclusion from this study is that CBTA appeared to have little effect on the rate of crash involvement in the first 12 months of driving on a Provisional Licence, compared with drivers who took the VORT, but it did appear to reduce the rate of traffic offences at least among males (although even this may be an artefact of a factor not examined). These findings are consistent with the outcome of a review of evaluations of driver improvement programs conducted by Struckman-Johnson et al (1989).

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APPENDIX A

Request for information from the Transport SA Customer Service Centre, on drivers who obtained a Provisional Licence

The extract should include clients who were first issued with a Provisional car licence in 1998 or earlier (as far back as possible). The information is for a study into the relationship between offences/road crashes and the type of test undertaken by the client.

The following information on each client is required:

- licence number
- gender
- date of birth
- test type (CBTA/VORT)

- date first learner's permit issued
- date passed first Provisional Licence test
- date first Provisional Licence issued
- date first full licence issued

- residential post code when first learner's permit issued

- year of manufacture of newest vehicle registered to client at the time of issue of first Provisional Licence (exclude motorcycles, trailers)
- date of first licence disqualification after obtaining first Provisional Licence

- list all offences recorded against the client from the date the first learner's permit was issued (may be multiple: offence type and date for each)

